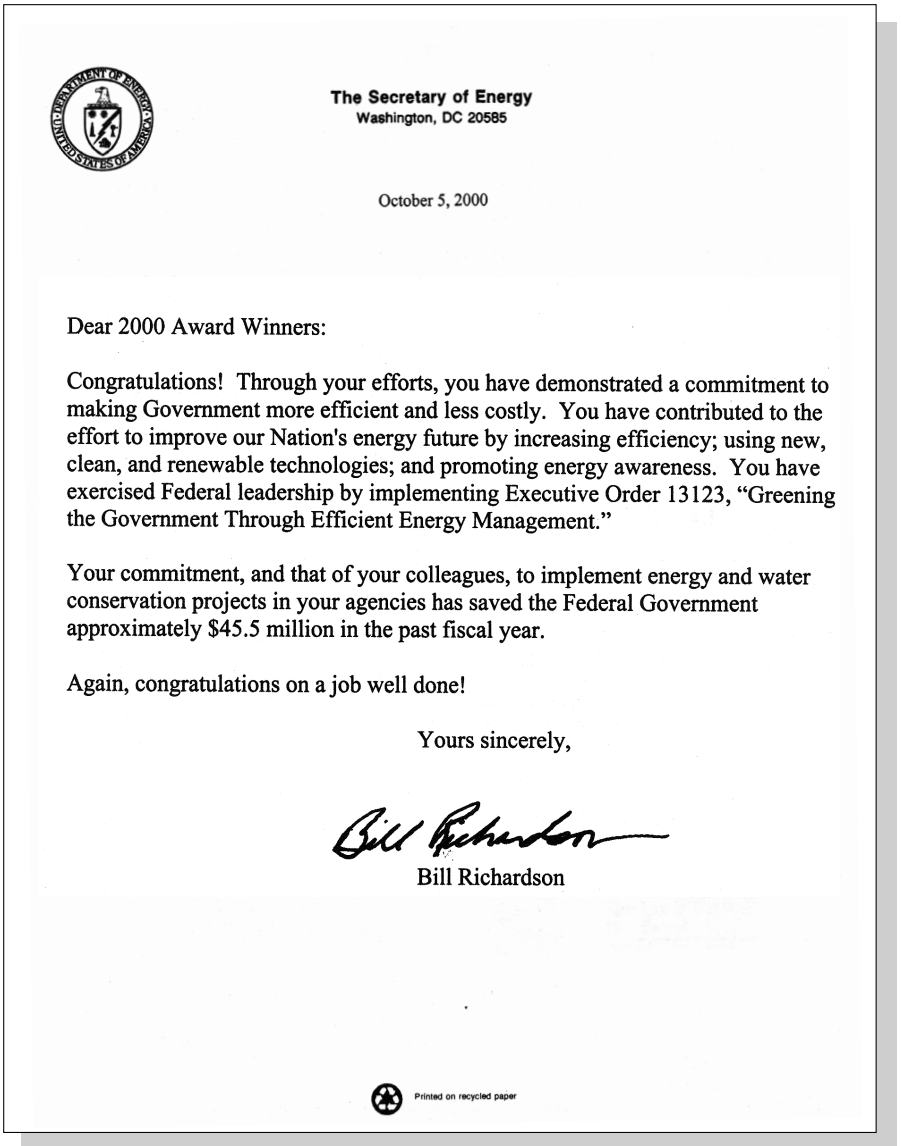
U.S. Department of Energy
Energy Efficiency and Renewable Energy
November/December 2000

FEMP FOCUS

FEDERAL ENERGY MANAGEMENT PROGRAM

Special Issue: 2000 Federal Energy and Water Management Award Winners

FEMP is Your Partner in Making Projects Happen!



The Secretary of Energy
Washington, DC 20585

October 5, 2000

Dear 2000 Award Winners:

Congratulations! Through your efforts, you have demonstrated a commitment to making Government more efficient and less costly. You have contributed to the effort to improve our Nation's energy future by increasing efficiency; using new, clean, and renewable technologies; and promoting energy awareness. You have exercised Federal leadership by implementing Executive Order 13123, "Greening the Government Through Efficient Energy Management."

Your commitment, and that of your colleagues, to implement energy and water conservation projects in your agencies has saved the Federal Government approximately $45.5 million in the past fiscal year.

Again, congratulations on a job well done!

Yours sincerely,

Bill Richardson

Bill Richardson

Printed on recycled paper

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Assistant Secretary
Energy Efficiency &
Renewable Energy ..... Dan W. Reicher

FEMP Director ..... Beth Shearer

FEMP Focus Editor ..... Annie Haskins

The *FEMP Focus* is published bimonthly by the Federal Energy Management Program of the U.S. Department of Energy/Office of Energy Efficiency and Renewable Energy.

If you are making projects happen at your Federal facility, FEMP would like to hear from you. Please submit project descriptions to Annie Haskins at the address listed below. You will be contacted for additional information if your project is selected to be featured in a future edition of the *FEMP Focus*.

Address mail to:

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FEMP
FEDERAL ENERGY MANAGEMENT PROGRAM

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First Annual Presidential Awards for Federal Energy Management Success

The President, on October 20, 2000, honored four Federal agency energy management teams and more than 30 Federal employee participants of these teams for their support, leadership, and efforts in promoting and improving Federal energy management, and thereby saving millions of dollars in energy costs.

The Presidential Awards for Federal Energy Management Success, were presented for the first time, as required by Executive Order 13123, Greening the Government through Efficient Energy Management. Winners included representatives from the Environmental Protection Agency, the Department of State Office of Foreign Building Operations, the Department of the Interior's National Park Service along with the Department of Energy, and the U.S. Army Energy Team. Award recipients were recommended to the President by the Office of Management and Budget and FEMP. The full list of winners can be found at www.eren.doe.gov/femp/newsevents.html.

John Podesta, White House Chief of Staff, was the keynote speaker at the event. He was joined by T.J. Glauthier, Deputy Secretary of Energy, who also provided remarks. Jacob Lew, Director of OMB and Sylvia Mathews, Deputy Director of OMB, presented the awards. Sally Katzen, Deputy Director for Management of OMB, provided the welcoming and closing remarks.

For more information on the Presidential Awards for Federal Energy Management Success, contact Annie Haskins at 202-586-4536, annie.haskins@ee.doe.gov, or visit FEMP's Web site at www.eren.doe.gov/femp/newsevents/pres_awards.html.

John Podesta, White House Chief of Staff, makes remarks at the first annual Presidential Awards for Energy Management Success. Seated from left to right are T.J. Glauthier, Deputy Secretary of Energy; Jacob Lew, Director of OMB; and Sylvia Mathews, Deputy Director of OMB.

more photos on next page

The Department of State, Office of Foreign Building Operations, implemented an impressive number of solar, wind, geothermal, and fuel cell projects at embassies worldwide.

The Department of the Interior's National Park Service and the Department of Energy have committed significant financial and technical resources to implementing innovative renewable and energy-efficient technologies in National Parks across the country through their outreach partnership, the "Green Energy Parks" program.

The Environmental Protection Agency, Engineering and Real Estate Branch, implemented energy savings performance contracts that reduced energy consumption at two facilities by 60 percent.

The U.S. Army Energy Team has saved $31 million in utility costs through a variety of energy efficiency and renewable energy projects at bases like the Tobyhanna Army Depot and the U.S. Army Intelligence Center, Fort Huachuca.

Federal Energy and Water Management Awards 2000

Pursuing Federal Energy Efficiency

Energy is a luxury that no one can afford to waste, and many Federal Government agencies are becoming increasingly aware of the importance of using energy wisely. Thoughtful use of energy resources is important, not only to meet agency goals, but because energy efficiency helps improve air quality. Sound facility management offers huge savings that affect the agency's bottom line, the environment, and the workplace.

In these fiscally-modest times, pursuing sound energy management programs can present additional challenges for energy and facility managers. The correct path to take is not always the easiest. Hard work, innovation, and vision are characteristic of those who pursue energy efficiency. That is why the Department of Energy, Federal Energy Management Program (FEMP), is proud to salute the winners of the 2000 Federal Energy and Water Management Awards.

The winners for 2000 represent the kind of 21st century thinking that will help achieve widespread Federal energy efficiency. In one year, the winners, through a combination of public and private partnerships, saved more than $45.5 million and 3 trillion Btu by actively identifying and implementing energy efficiency, water conservation, and renewable energy projects. Through their dedication, hard work, ingenuity, and success, the award winners also have inspired others to increase their own efforts to save energy and water and to more aggressively pursue the use of renewable energy sources. The Federal Energy and Water Management Awards recognize the winners' contributions and ability to inspire others to take action. Please read about these individuals, small groups, and organizations in the following pages. The award winners are the Government's energy champions and FEMP is grateful for their pursuit of excellence in facility management. Congratulations to each winner and thanks to each private sector partner.

2000 Federal Energy and Water Management Award Winners

Water Management Awards to Organizations

12th Flying Training Wing
Randolph Air Force Base
United States Air Force
Randolph Air Force Base, Texas
210-652-3155

The 12th Flying Training Wing at Randolph Air Force Base distinguished itself by implementing effective water management initiatives, conservation projects, and public awareness campaigns. Highlights of Randolph's water conservation program include the use of 106 million gallons of gray water to irrigate the Base golf course and voluntary implementation of Stage II water use restrictions. Extensive public awareness campaigns that compared actual water consumption to water use goals kept the Base populace informed and involved in the community conservation effort. Execution of these measures helped Randolph meet challenging water reduction goals, especially during periods of extended drought conditions. When Randolph officials determined that the base had exceeded its water use goal for the month of October 1999, they immediately implemented voluntary water use restrictions, even though the aquifer was not at mandatory Stage II levels. As a direct result of implementing these voluntary water use restrictions, Randolph remained 1.6 million gallons below its overall yearly target for water use. Randolph officials also developed a comprehensive, six-year program for water system upgrades and maintenance. This plan identified 18 major projects valued at $7.1 million dollars. In addition, water meters were installed on all Base cooling towers. This allows craftsmen to immediately identify and repair system malfunctions, especially problems that result in water waste such as stuck float valves.

7th Civil Engineer Squadron
Dyess Air Force Base
United States Air Force
Dyess Air Force Base, Texas
915-461-5628

The 7th Civil Engineer Operations Flight at Dyess Air Force Base has taken several successful steps towards creating an operation grounded on environmental responsibility through water conservation. Before implementing water conservation measures, the Base had been using approximately 530 million gallons of water per year – approximately five percent of all water used for the city of Abilene, the supplier of water for the Base. Under the leadership of the 7th Civil Engineer Squadron, Dyess AFB voluntarily started rationing water usage even before the city of Abilene began mandating its water rationing. In addition, the organization added several loops to the base water system that had been dead-end lines. Several areas of the Base were changed "back to nature," eliminating the need for watering these areas on a regular schedule. Also, the watering schedule for the golf course was optimized to eliminate waste due to over-watering and excessive evaporation. These measures, implemented in a timely and efficient manner, have reduced Dyess AFB's water consumption by 30 percent, a savings of more than 154 million gallons annually, and $258,000 per year.

US Army Intelligence Center & Fort Huachuca
Department of the Army
Fort Huachuca, Arizona
520-533-1140

During FY 1999, the United States Army Intelligence Center and Fort Huachuca reduced water consumption by 12 percent (an 86 million gallon decrease) from FY 1998. These reductions saved the taxpayer $284,000 in comparison to FY 1998 water production costs. Fort Huachuca achieved this reduction through the efforts of all of its component organizations and included a concerted effort to implement cost effective water conservation projects along with a high visibility water conservation education program. Examples of water conservation projects implemented by Fort Huachuca include completion of a water control system to greatly reduce tank overflow in the water system, identifying and repairing significant leaks in the water lines, installation of 71 waterless urinals (bringing Fort Huachuca's total number of waterless urinals to 275), saving approximately 3.2 million gallons of water per year, and installation of low-flow 1.5 gallon per minute showerheads in facilities. In addition, Fort Huachuca implemented the Water Wise and Energy Smart outreach program. The objective of this program is to implement community education on energy and water conservation and natural resource stewardship. Targeted to the 10,000 U.S. Army and civilian employees and 4,500 family members who work or live on Fort Huachuca, the program has proven to be successful in increasing awareness of energy and water consumption, as demonstrated by the reduced use of utilities on Fort Huachuca.

George Washington Memorial Parkway
National Park Service
Department of the Interior
McLean, Virginia
703-289-2500

In 1999, the George Washington Memorial Parkway grounds division implemented a new means of watering the 400 trees recently planted on its landscapes. The goal of this new method was to conserve the highly wasteful water run-off associated with conventional watering methods. The division purchased 285 "Treegators," which are 12-millimeter nylon-reinforced, UV-treated polyethylene 20-gallon capacity bags that fit around tree trunks and serve as a self-contained portable drip irrigation system. It proved to be a very efficient and effective method to water trees, especially where irrigation systems are non-existent. The use of Treegators has also produced savings due to reduced labor costs. In addition to using Treegators, the grounds division began to use the Potomac River as a direct water source during the 1999 summer drought when water conservation measures implemented by NPS and the George Washington Memorial Parkway restricted the use of potable water.

Mora National Fish Hatchery & Technology Center
Fish and Wildlife Service
Department of the Interior
Mora, New Mexico
505-387-6022

The Mora National Fish Hatchery and Technology Center has incorporated extensive water reuse facilities and sophisticated water recycling systems into its hatchery design. Water savings due to innovative, state-of-the-art water reuse systems will be approximately 2.2 billion gallons per year, based on a remarkable water reuse rate of 95 percent. Cost savings for the water reuse system are estimated at $9.3 million annually, after operations and maintenance costs. Engineering design of the final phase is currently 70 percent complete and will include a visitor center with displays that will describe the various water conservation systems in the hatchery building. These displays will help to educate the public about both the environmental and financial benefits of water efficiency measures. The Mora National Fish Hatchery and Technology Center's efforts to make water conservation a priority in its operation and maintenance will enhance the Department of the Interior's reputation as a Government leader in innovative water conservation technologies.

Renewable Energy Awards to Organizations

GSA New England Region
General Services Administration
Boston, Massachusetts
617-565-4693

The GSA New England Region has implemented a project that has proven to be a significant step forward in the goal to make renewable power sources a part of every day building operations. GSA partnered with the Department of Energy's Federal Energy Management Program (FEMP) to install one of the nation's largest solar arrays at the John F. Williams Federal Building in downtown Boston. This project has also substantially contributed to the President's Million Solar Roof Initiative. Phase I of the project was completed and tested on October 4, 1999. It included the building integrated photovoltaics system, with approximately 4,000 square feet of roof surface covered by solar panels. The system will result in an annual estimated energy savings of 28 megawatt-hours. Phase II will include the replacement of two 100-ton chillers with chillers that use non-chlorofluorocarbon-based refrigerants; the retrofit of fans, motors, and lighting; the substitution of high-priced district steam for "in-house" gas-fired boilers; and the installation of two 75 kilowatt cogeneration units to decrease the facility's utility bills.

Naval Surface Warfare Center
Department of the Navy
Dahlgren, Virginia
540-653-7518

The Naval Surface Warfare Center, Dahlgren, installed state-of-the-art evacuated tube collector solar water heating systems on three buildings. The buildings have 16 to 24 hour operation and a fairly constant hot water lead, making solar water heating an attractive option. All three systems are installed and working, providing hot water to approximately 121 people. The solar water heating systems are saving 192 million Btu per year and $937 annually in avoided energy costs. Because the solar water heaters provide their greatest output at just the right time to reduce peak demand, they are saving the facility an additional $14,450 annually in demand changes. Dahlgren also funded and installed the largest photovoltaic lighting system for a parking lot in the entire Department of the Navy. Twenty-four poles provide support for 36 lights, which distribute light across the parking lot more evenly than anticipated. Installation of the solar lighting offset costs for underground wiring and conduit. This lighting project is saving the facility 112 million Btu per year and $1,589 annually in avoided energy costs. As a result of the Center's efforts, the U.S. Navy is saving 304 million Btu and $2,526 per year.

Renewable Energy Awards to Small Groups

Robert Kennedy
Bobby Lynn
Albert McNamee
Michael Pratt
Gerald Valentine
Walter Thomas
Headquarter III Corps & Fort Hood
Directorate of Public Works
Energy Management Team
Fort Hood, Texas
254-287-5707

Fort Hood is harvesting the sun's energy by using two new innovative energy reduction technologies: solar parking lot lighting and an active daylighting system. Each of the 156 units of active daylighting installed produces the equivalent of approximately 600 to 800 watts of fluorescent light. The system virtually eliminates all daytime electric lighting, equating to more than 1.4 billion Btus of renewable energy. The Solar Parking Lot Lighting System provides a free lighting source for illumination. The system is environmentally friendly – just two panels produce 800 kilowatt-hours per year, eliminating more than one ton of pollution in emissions. These two projects combined have saved a total of approximately 2.5 billion Btu and $103,000.

S. Brian Cable
Scott W. Davis
Edward H. McKenna
Vilay Joyce Sengpaseuth
Guy Urata
Department of the Navy
San Clemente Island 675-KW
Wind Turbine Project
San Diego, California
805-982-1207

In order to reduce the use of diesel fuel and associated harmful emissions, in 1998 the Naval Facilities Engineering Service Center and the National Renewable Energy Laboratory installed two 225-kilowatt wind turbines at the Naval facility on San Clemente Island in California. A third turbine began operating in late 1999. These turbines augment the existing diesel power plant. From February 5, 1998, through April 4, 2000, the turbines produced 2 million kilowatt hours–approximately 13 percent of the island's total electric power needs. In FY 1999, the turbines helped San Clemente decrease consumption of 141,757 gallons of #2 diesel fuel, which equates to savings of $141,757, and avoided 18,450 pounds of carbon monoxide emissions. In the future, the turbines should provide 15 percent or more of the island's electric power, further reducing diesel fuel use and emissions.


S. Brian Cable


H. Edward McKenna


Vilay Joyce Sengpaseuth


Guy Urata

Mobility Energy Awards to Organizations

USS BONHOMME RICHARD (LHD6)
Department of the Navy
619-556-3489

Able to meet critical mission requirements while at anchor and underway, the USS Bonhomme Richard not only achieved a 33 percent savings of the allotted fuel burn rate in FY 1999, she also performed better than her class average by $1.1 million. Through innovative practices including the ship's Valve Maintenance Program and an aggressive "all hands" energy awareness program, the ship avoided consuming more than 2.2 million gallons of fuel in FY 1999, saving $1.8 million. The USS Bonhomme Richard's Valve Maintenance Program promotes innovation in preventive and corrective maintenance. In FY 1999, high and low pressure drain valves were replaced, saving more than $60,000 in contractor costs.

Fleet Logistics Support Squadron Five-Eight
Department of the Navy
Jacksonville, Florida
904-542-2308

Comprehensive energy savings measures have been undertaken in Support Squadron Five-Eight (VR-58). Through innovative ideas solicited from the entire chain of command, efficient operational planning, and the command's commitment to energy conservation, the Squadron achieved a 15 percent savings in aircraft fuel consumption. This reduction represents more than $1 million in annual cost savings, compared to the FY 1995 baseline. This achievement also surpasses the Chief of Naval Operations goal of 5 percent reduction by FY 2000. Administrative vehicle use was reduced 25 percent in FY 1999 by consolidating runs, resulting in reduced fuel consumption. In addition, 30 percent of all Squadron spaces have been fitted with motion sensors and 10 percent of passageways are now using energy-efficient lighting fixtures. In FY 1999, VR-58 achieved a total energy cost savings of more than $1 million.

Energy Efficiency/Energy Management Awards to Organizations

Atlantic Undersea Test and Evaluation Center
Department of the Navy
Newport, Rhode Island
401-832-7010

Atlantic Undersea Test and Evaluation Center (AUTEC), on Andros Island, Bahamas, implemented a "Green Island" Program to conserve natural resources and reduce all forms of pollution. In 1999, AUTEC installed solar water heaters on a new barracks equipped with energy-efficient lighting and appliances. The solar water heaters will save an estimated $8,000 annually. The National Renewable Energy Laboratory and the Department of Energy also selected AUTEC as a "Million Solar Roofs Program" site, awarding AUTEC a $75,000 grant to install additional state-of-the-art solar water heaters. Photovoltaic perimeter lighting was installed in 1999 at a cost per unit of $2,500, plus $500 for installation. Over the 12-year projected life of each unit, annual cost savings are $500 per unit. In 1999, AUTEC volunteered to evaluate battery-powered Chevy S-10 pickups for the Naval Facilities Engineering Service Center, and ordered eight of them at no cost. AUTEC took delivery of these vehicles at the end of 1999, and transported them to the main base in early 2000. The eight electric pickups are projected to save $1,700 a year in fuel costs. In addition to the trucks, AUTEC uses a variety of battery-operated vehicles, such as two- and four-seater golf carts. The total energy cost saved by AUTEC in FY 1999 was $177,596 and more than 32 billion Btu.

Naval Air Station
Pensacola Region
Department of the Navy
Pensacola, Florida
850-452-4515

Naval Air Station Pensacola Region undertook three major initiatives in FY 1999. The first initiative was to install individual boilers and heating systems as part of the decentralization of the station's central steam plant. The next project was to implement more than $5 million in claimant-funded special projects. Projects included replacing a 100-ton chiller system, heating boilers, air handlers, and a cooling tower; installing a 100-HP boiler, window film, and a variable air volume (VAV) system; and renovating a bachelor officers quarters. Finally, in a partnership with Gulf Power, the station eliminated a deteriorating gas line system and installed ground source heat pumps in 236 residential apartments. Units were upgraded with higher levels of insulation, low-flow shower fixtures, and energy-efficient lighting and appliances. A Gulf Power study demonstrated a two-thirds reduction in energy consumption per unit. Additionally, the region has an active energy conservation and awareness program initiated by the region's Commanding Office, Executive Conservation Board, Energy Conservation Action Team, and Building Energy Monitors. As a part of this program, the housing office and Gulf Power presented each housing resident a pamphlet on ground source heating and cooling systems. Total energy costs saved by the Naval Air Station Pensacola Region in FY 1999 were $1.5 million along with more than 154 billion Btu.

National Energy Task Force
United States Postal Service
Trenton, New Jersey
609-581-3102

The United States Postal Service's (USPS's) National Energy Task force was chartered in 1995 to systematically address how the USPS was going to manage its energy program in the future. This group met quarterly for several years and developed a national policy and procedures for implementation of an energy management program for the USPS. The end product, USPS Facility Energy Management Guide, was released to the entire Postal Service during FY 1999. The target audience for the Guide comprises the following USPS personnel: facility managers, environmental coordinators, area maintenance managers, field maintenance supervisors, purchasing specialists, and designated facility energy coordinators. This directive is intended to serve as a hands-on, practical guide for these USPS energy managers. It is a dynamic document that will be updated as laws, policies, and other circumstances change. The guide includes ways to develop appropriate programs to reduce electricity and other fuel costs and how to purchase energy-efficient products. It also includes how to construct, operate, and maintain energy-efficient facilities, and it promotes efficient use of energy among USPS employees.

US Army
Aberdeen Proving Ground
Department of the Army
Aberdeen Proving Ground,
Maryland
410-298-4006

For the fifth consecutive year, the United States Army, Aberdeen Proving Ground (APG) has made major decreases in total energy consumption. During FY 1999, six new facilities were added to the Edgewood Area's Energy Management and Control System (EMCS) and there were major improvements to 20 of the existing systems. Also, in the Aberdeen Area, 20 of the 44 facilities received a new EMCS. A special team effort between the Directorate of Safety, Health, and Environment and the Directorate of Public Works (DPW) helped to convert an additional six boiler plants to natural gas dual fuel operation. APG also performed maintenance on their HVAC systems. Filters were replaced, boilers were cleaned, and systems were serviced on a regular schedule. The Energy Conservation Process Action Team is made up of individuals with various types of technical backgrounds. The DPW team along with tenant representatives, Baltimore Gas and Electric and Constellation Energy (utility partners) discuss new projects for both APG-funded and utility-financed energy projects. The implementation of the Supervisory Control and Data Acquisition system, which monitors and controls APG's electrical sub-stations in the Edgewood Area, has given high-voltage technicians the ability to monitor and control electrical loads and perform peak shaving and load rolling. APG has also procured two test devices with associated software packages to detect malfunctioning steam traps. For FY 1999, the energy savings totaled $1.1 million and more than 108 billion Btus.

US Army
Intelligence Center & Fort Huachuca
Department of the Army
Fort Huachuca, Arizona
520-533-1140

During FY 1999, the United States Army Intelligence Center and Fort Huachuca reduced energy intensity by 7.8 percent versus FY 1998. Fort Huachuca completed several conservation projects, as well as technical and education efforts. A major effort included conversion of eight red traffic lights at one intersection from incandescent to Light Emitting Diode (LED), replacement of two 175-ton chillers at the main building for the Joint Operability Test Command (JITC) to more efficient models, and conversion of standard T-12 fluorescent lighting to T-8 with electronic ballasts (including dimmable units and some reflectors) in 21 buildings. Approximately 7,000 fixtures were upgraded. All exit signs in the 21 buildings were replaced with new LED exit signs. A lighting project was also completed in five other buildings converting T-12 to T-8 with electronic ballasts. All non-LED exit signs were replaced with LED exit signs in the five buildings. Another initiative involved installing two new photovoltaic systems, four passive solar domestic hot water units, and repairing three solar domestic hot water systems. Fort Huachuca saved almost $728,000 and 91.3 billion Btu from the previous year.

Energy Efficiency/Energy Management Awards to Small Groups

Don Hadley
Charles Howell
Regina Lundgren
Elizabeth Malone
Andrea McMakin
Operation Energy Campaign
Department of Energy
Richland, Washington
509-375-3708

left to right: Andrea McMakin, Elizabeth Malone, Don Hadley, Charles Howell, Regina Lundgren.

Fort Lewis Army Installation in Washington State houses more than 12,000 family members in 3,500 housing units. In order to meet the 2010 Federal requirements for energy reduction, this team of professionals designed Operation Energy to target end-use behaviors of residents. Operation Energy implemented an extensive outreach campaign that focused on encouraging residents to adopt specific behaviors that would lead to increased energy efficiency in their homes. The campaign was the first of its kind nationwide, generating data-driven, precedent-setting insights into the effectiveness of persuasive strategies applied to military housing communities in the absence of personal utility bills. Residents were encouraged to turn their thermostats down at night or when gone, close windows when the heat was on, clean dryer lint traps, run full wash loads, and set refrigerator and freezer temperatures properly. Data from energy use and residents verified that energy use had dropped and residents had begun adopting the target behaviors. A mail survey and a handbook of guidelines for other military bases promoted and explained Operation Energy's achievements. Results for FY 1999, corrected for weather, showed a savings of approximately 22 billion Btu of gas and electricity energy from the previous year's use. Family housing alone used 10 percent less energy from the year before, the equivalent of $130,387 saved. This result dramatically exceeded the campaign goal of 3 percent savings.

Todd Garlick
Don Hadley
Darrell Hatley
Jeff Lettau
Ron Underhill
Recommissioning of ETB/EESB Buildings at Pacific Northwest National Laboratory
Department of Energy
Richland, Washington
509-375-3708

Front row (left to right): Jeff Lettau, Todd Garlick. Second row (left to right): Ron Underhill, Don Hadley.

The Environmental Technology Building (ETB) and Energy and Environmental Sciences Building (EESB) Recommissioning Project led to significantly improved occupant comfort and reduced energy costs in the ETB and the EESB Buildings on the Pacific Northwest National Laboratory (PNNL) campus. Before the recommissioning, occupants complained of poor heating, cooling, and drafts. Also, energy use was high with ETB, which used 40 percent more energy in 1998 than in 1995. PNNL's building recommissioning team carefully designed and implemented a 3-week controlled test of the buildings' energy performance. This required returning the buildings' energy management control systems to their original, "as-designed" operating strategy and set points. In the process of resetting the control system for the test, it was discovered that at some unknown time in the past, the duct temperature set point for ETB had been manually reset and locked at 57°F. As a result, the ability of the system to automatically adjust temperature set points in response to changing outdoor conditions and indoor requirements was eliminated, increasing energy use and operating costs. The EESB duct temperature set point was also found to be set low (61°F). The duct temperature set point in both buildings was reset to 67°F and was restored to automatic control so that the heating system was not simultaneously heating and cooling. After the adjustments, the improvements in occupant comfort and building energy performance were significant and immediate. The FY 1999 cost savings in electricity was an estimated $95,000 and 11 billion Btu.

Perry L. Boeschen, P.E., CEM
Hosea M. Fletcher
Katherine Miles
Richard R. Stewart
Tom Yochim
RAY Building
Energy Conservation Project
General Services Administration
St. Louis, Missouri
314-539-7120

The Robert A. Young (RAY) Building Energy Conservation Project was the first area-wide contract completed by Region 6 of the General Services Administration (GSA). Using an area-wide contract allowed GSA to contract for energy-efficiency measures directly with utility companies. The $892,000 project used funds specifically designated for energy conservation to complete several items. The first initiative was to repair the controls on three variable air volume air-handling systems to correct operating difficulties. The three systems located in the penthouse provided for the majority of the building. The controls were not operating correctly, so it caused the fans to operate needlessly and waste energy. The next initiative was to correct the amount of outside air introduced into the facility through the air handling units by re-balancing the minimum outdoor air quantities to correspond with the occupancy of the building. Also, the controls were corrected to shut off air supply to unoccupied floors during the evenings and weekends. The next project was to convert the chilled water and condenser water systems from constant flow to variable flow. This also included installing new differential pressure controls, control valves, flow meters, and variable frequency drives. Next, the team installed a meter on the cooling tower makeup water line to determine how much makeup water was used. Reductions of more than 11 percent in the electrical usage were achieved, resulting in savings of almost $140,000 and more than 8 billion Btu for this 1.1 million square-foot building.

left to right: Hosea Fletcher, Tom Yochim, Rick Stewart.

Peter Adrian
Fred P. Louis
Walther Rausch
Karl-Heinz Schneider
Klaus Wollny
Department of the Army
414th Base Support Battalion
Hanua, Germany
011-49-6181-888879

The 414th Base Support Battalion (BSB), Hanau, met several energy reduction goals thanks to the efforts of this group of talented individuals. The Team attributes the steady decline of energy consumption over the years at their Base to several upgrade projects and community involvement. The 414th BSB Commander places special emphasis on the incorporation of energy conservation measures to daily operations. The Commander ensures that, through various policy and memorandums, the word gets out in the community to conserve energy. Soldiers are briefed about energy conservation during in-processing, and energy conservation is included in the unit standard operating procedures. Also contributing to energy cost savings is a mature utilities privatization program. Armstrong Barracks and Family Housing, which comprises of 42 buildings, were privatized with the local public utility supplier in FY 1999. The supplier replaced eight boilers, converted 15 oil-fired burners to more energy efficient and environmentally- friendly gas-fired units, and linked two buildings to the local district heating network in lieu of boiler replacement. Also, the water supplier launched a major water savings initiative aimed to repair the vintage water distribution network. Leaks were quickly repaired, which reduced water losses to 8 gallons per hour. In addition, a $65,000 water savings project to replace 25 defective gate valves in the water network was funded through the Department of Defense and executed during the same time period. The community also has upgraded and expanded its energy monitoring and control computer. For FY 1998, the total energy savings were $166,000, and with 21 billion Btu.

Peter Adrian

Fred P. Louis

Walter Rausch

Karl-Heinze Schneider

Klaus Wollny

Julius DeLeon
Joe Leal
Mark Levi
Michael Plakosh
Tim Steele
Northern California
Lighting Retrofit Team
General Services Administration
San Francisco, California
559-454-7196

Joe Leal

During 1999, the General Services Administration Pacific Rim Region carried out a series of lighting retrofit projects in northern California, within the Pacific Gas & Electric Company (PG&E) service territory. Approximately 23,000 fixtures were retrofitted and 2,000 sensors installed at five civilian agency buildings, and one military base. These projects were implemented through interagency collaboration between the GSA, the Bonneville Power Administration, the Internal Revenue Service, the Social Security Administration, and the U.S. Navy. The first project initiated was for lighting retrofits at the IRS Service Center in Fresno, California. A contracting structure developed for earlier projects in southern California was refined and used for the project. The first step in implementation was a contractor performed audit of the facility to reconcile fixture counts and plan the work. Work could then commence with a price adjusted for the reconciled fixture count, minimizing change orders and contingency markups. Additional work identified during the project could, and was accomplished, using the same method. This method was adopted for the contracts for the Bay Area buildings and for the Naval Postgraduate School. The project for the Bay Area buildings included the Phillip Burton Federal Building and U.S. Courthouse in San Francisco, the U.S. Court of Appeals in San Francisco, the National Archives in San Bruno, and the Social Security Administration Western Program Center in Richmond, California. Life-cycle cost savings from the project is more than $1.8 million. In FY 1999, GSA's energy savings totaled more than $273,000 and more than 11.6 billion Btu.

Juergen Geibel
Yogendra Patel
Department of the Army
222nd Base Support Battalion
Baumholder, Germany
011-49-6783-66317

Juergen Geibel

Yogendra Patel

Mr. Geibel and Mr. Patel of the United States Army 222nd Base Support Battalion (BSB) executed an effective energy conservation program which improved customer satisfaction and facility operation conditions. Despite financial constraints, the 222nd BSB has been able to provide the same level of service at reduced costs. Through the utilization of engineering design know-how and in-house expertise, execution of the major tasks to improve heating systems has resulted in a reduction of more than 90 percent of the steam load at a savings of nearly $2.5 million dollars. Numerous HVAC modernization programs were executed. A total of 17 boilers in the oil fired plants were replaced including optimization of the systems to reduce the oil consumption, increase the efficiency and improve environmental standards. Also, 140 domestic hot-water generators were replaced in family housing and military areas. A major contribution towards energy conservation was achieved through a systematic temperature-regulating valve replacement program. The hot water heating systems in the individual buildings were hydraulically balanced through installation of hydraulic regulating valves. Clogged or rusted galvanized piping was replaced in 27 buildings. Part of the existing Energy Monitoring and Control Computer was modernized in the course of the barracks renovation program. In FY 1999, this project saved the U.S. Army $2.5 million in energy costs and 208 billion Btu.

Randy Sawyer
Bev Thompson
Department of the Navy
Yorktown, Virginia
757-887-4637

Bev Thompson,Randy Sawyer

Mr. Sawyer and Ms. Thompson are the driving forces behind the Naval Weapon Station Yorktown's Total Energy Asset Management—Strategic Energy Management Program (TEAM SEMP) which attacked untapped areas of energy reduction: awareness, training, and employee participation. One notable objective is the development of an Internet-based energy training course. Portions of the course are being used to train Station personnel and are producing great results. Station personnel are the real TEAM and their efforts in pointing out small projects are extremely noteworthy in the success Naval Weapons Station Yorktown has enjoyed. TEAM SEMP completed a number of small projects which Station personnel were key factors in identifying and developing. Other project accomplishments consisted of a major lighting retrofit for the entire station. The retrofit was identified by TEAM SEMP and funded by Public Works Center (PWC) Norfolk. Underground steam line repair was also completed. HVAC retrofits were identified and funded by the Navy Opthamlic Support & Training Activity (NOSTRA). Finally TEAM SEMP identified exterior lights photocell placement which was funded by PWC Norfolk. Naval Weapons Station executed more than $1.2 million of energy project work in FY 1999 through TEAM SEMP, saving more than $268,000 in energy costs and more than 22 billion Btu.

Alternative Financing Awards to Organizations

Military District of Washington
Department of the Army
Washington, DC
202-685-2904

The Military District of Washington (MDW) executed the Federal Government's largest ever energy savings performance contract in June 1999. Under this contract some $67 million in private investment will fund energy upgrades for 837 buildings at five installations in the Army's MDW (Fort Belvoir, Fort A. P. Hill, Fort Myer, Fort McNair, and Fort Meade) at no up-front cost to the taxpayer. This investment will occur within the first 30 months of the contract. The task order includes energy conservation measures such as lighting retrofits, motor replacement, HVAC controls, upgrades to central heating and cooling plants, and water conservation. To date, MDW has reduced energy usage by more than 24 percent compared to the 1985 baseline; this contract guarantees an additional reduction of 13 percent by FY 2002. The Department of Defense will save more than $214 million in energy and related costs over the 18-year term. Environmental benefits are also significant, with the annually-avoided emission of more than 600 metric tons of smog and acid-rain-causing air pollutants, and almost 24,000 metric tons of greenhouse gases. More than 50 million gallons of water will also be saved per year. MDW used the Defense Energy Support Center as its contracting agent; its pioneering use of this partner has helped open additional opportunities to the U.S. Army, brings more energy expertise to the ESPC process, and formed a partnership that continues to explore cost savings processes for the U.S. Army. These improvements will support U.S. Army operations well into the 21st century without the need for extra funding, and will provide more comfortable living conditions and quality of life of those who live and work at the five installations.

Tobyhanna Army Depot
Department of the Army
Tobyhanna, Pennsylvania
507-895-7097

The ESPC at Tobyhanna Army Depot awarded in June 1999 is worth $32 million and is the largest single-installation ESPC project in the U.S. Army. This project involves three major retrofit efforts: a new high-efficiency decentralized heating system; lighting modifications; and a new energy management and control system. The new heating system has replaced an aging, inefficient coal-fired central plant and steam distribution system with a series of high-efficiency, properly-sized boiler plants that burn natural gas. Energy saved each year by this ESPC represents more than 34 percent of the total energy consumed by Tobyhanna Army Depot. Water consumption will decrease by 20 percent. It is expected that the ESPC will also generate net savings of $6.6 million over the 22-year term. Environmental benefits will also be significant with 60 percent reductions in emissions of sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds, and particulate matter. The ESPC will also eliminate uncovered coal storage and subsequent runoff. Savings for this project in FY 1999 reached $1.3 million and more than 290 billion Btu.

Alternative Financing Awards to Small Groups

Timothy K. Adams
Susan Anderson
Richard Bauman
Freddie L. Beason
Joseph T. Price
USAF ESPC
Program Support Team
United States Air Force
Tyndall AFB, Florida
850-283-6361

The Air Force ESPC Program Support Team located at the Air Force Civil Engineer Support Agency at Tyndall Air Force Base plans, develops, and oversees the execution of the Air Force ESPC program. ESPC services are now available to every Air Force activity in the nation. The Team provides on-call contracting and engineering assistance, develops model contract documents, and maintains a Web site containing the latest ESPC program information. During FY 1999, the Team assisted bases in awarding 16 ESPC task orders. These task orders included energy conservation measures such as lighting retrofits, upgrading chilled water systems, improving insulation, installing thermal storage systems, and a solar hot water system. These 16 task orders are worth more than $27 million in capital investment; energy savings of more than 139 billion Btu will be produced and energy costs will be reduced by more than $2.2 million per year. By demonstrating that ESPCs are viable, practical, and logical, the Team is responsible for the Air Force choosing ESPC as the primary means of satisfying mandated energy reductions.

Freddie L. Beason

Charles Adams
Harry K. Atkins
Charles M. Ball
Perry L. Boeschen, P.E., CEM
Art Gendreau
General Services Administration
Kansas City, Missouri
816-823-2692

GSA's Kansas City Team determined the energy usage of the Kansas City Service Center was the highest of any GSA-owned facility in the Heartland Region. To evaluate the reasons for this, the Team contracted with the local utility company to perform an energy audit. GSA was also scheduled to receive $1.6 million to replace three of five 20-year old chillers; they requested this work be added to the overall project. The Team took a whole building approach to the chiller retrofit. The facility formerly used two chiller plants (one that cooled the computer/data center, and another to cool the tenants) and the audit recommended the new chiller plant be connected with the computer/data center plant, which was only six years old. Chilled water piping would be put in place that allowed the two plants to supplement each other, maximizing the use of the newer, most efficient chillers. Other energy conservation measures included installation of variable air volume systems; expanding the existing direct digital control energy management system; installation of a smaller, more efficient boiler; and installing properly sized uninterruptible power supply units. The utility company provided guaranteed energy savings, and as GSA was able to provide such a large amount of up-front capital, the loan term was minimized. Finally, since the chiller work would be reimbursed as soon as completed, the energy savings provided by the chiller replacement could help pay for the other energy-efficiency measures. This project will generate annual cost savings of more than $260,000, with more than 18 billion Btu also saved annually. Natural gas consumption also was reduced by 20 percent per year.

Alternative Financing Awards to Individuals

Dennis M. Klekar
National Aeronautics and Space Administration
Johnson Space Center
Houston, Texas
281-483-3133

Mr. Klekar was the initiator and champion of the energy savings performance contract awarded at NASA Johnson Space Center. He has worked tenaciously since 1994 to implement an energy savings contract at the Center and saw the project through its evolution from an attempted shared energy savings contract, a combined Base Operations Support Services/ESPC contract and finally through to a Regional Super ESPC delivery order. The delivery order, valued at approximately $43 million over its 23-year term, was issued to Honeywell, Inc., in February 1999 through DOE's Central Regional Super ESPC. It includes installing energy-efficient lighting and compressed air systems, variable speed pumping systems, cooling tower control systems, reducing water consumption and improving HVAC controls at the Johnson Space Center, the Sonny Carter Training Facility, and Ellington Field. Additionally, an advanced energy management system will be installed that will further enhance NASA's ability to cost-effectively monitor and manage the site environment, and improve comfort for NASA personnel. The savings reaped from this project will pay for the cost of the system replacement, about $20 million, with no cost to the taxpayer. During the construction period of FY 1999, Johnson Space Center has saved some $500,000 in energy costs and 40 billion Btu. Once the project is completed in May 2000, Johnson Space Center is guaranteed to save more than $1.7 million in energy and water costs and $340,000 in maintenance savings per year.

Innovative/New Technology Awards to Organizations

Strategic Positioning
Energy Center of Expertise
General Services Administration
Kansas City, Missouri
816-823-2691

Strategic Positioning is an integrated energy management solution to a constantly changing utility pricing environment brought about by deregulation of the electric industry. This solution serves as a capital investment strategy that justifies near term energy retrofits in marginally cost- effective technologies, with the expectation that they will become highly cost effective in the long term. Under Strategic Positioning, distributed power technologies receive priority funding from the Energy Center, with emphasis on renewable technologies. Strategic Positioning will enable the GSA to meet President Clinton's Million Solar Roof Challenge and many other requirements of Executive Order 13123. In FY 1999, using Strategic Positioning, the Energy Center funded projects with combined environmental impact amounting to an annual savings of more than 7.6 billion Btu, avoiding more than 914,000 pounds of carbon dioxide emissions.

Army Yuma Proving Ground
Department of the Army
Yuma, Arizona
520-783-3333

In FY 1999, the Yuma Proving Ground completed a Smart Weapons Test Range, which includes a stand-alone renewable energy 105 kilowatt solar electric plant. The test range is a hybrid operation with diesel backup, incorporating T-8 fluorescent lamps and high seasonal energy- efficiency ratio heat pumps designed to reduce parasitic load at the remote site. Other innovative features include an electric-powered Chrysler minivan with improved battery technology, two Sun Star skylight solar tubes which were installed in a family housing unit, and the Captain Conservo Energy Science Fair that brought water conservation and awareness to family housing residents. The Proving Ground realized cost savings of $1,416 in FY 1999, equivalent to a savings of 45 barrels of imported crude oil. Each year, 260 million Btu will be saved.

National Archives and Records Administration
General Services Administration
Kansas City, Missouri
816-926-7272

In 1996, the National Archives and Records Administration requested the General Services Administration to help site and build a low cost record center. Built into the side of a hill in metropolitan Kansas City, the National Archives and Records Administration's record center takes advantage of local geography. Consequently, its construction exemplifies sustainable design principles, while its operation demonstrates energy efficiency. These factors contribute to the facility being one of the lowest cost record centers in the nation. Using energy conservation measures such as occupancy sensors and T-8 fluorescent lighting, in combination with the heating and cooling advantages of an underground facility, the records center realized a savings in energy costs of $32,500 and saved more than 2.2 billion Btus in FY 1999.

Rodeo Post Office
United States Postal Service/
Lawrence Berkeley
National Laboratory
Rodeo, California
510-799-5105

Using a new integrated lighting technology developed by the Lawrence Berkeley National Laboratory, the Rodeo Post Office has achieved more than 50 percent savings in energy for lighting, while greatly improving the lighting quality in letter sorting areas. This new unified system approach integrated a unique high efficiency task light, a low glare ambient lighting system, and lighting controls. Surveys of the letter carriers showed an increased level of satisfaction with the new lighting, demonstrating the value of coupling lighting quality with energy efficiency. In FY 1999, the installation of this integrated system resulted in a 71 percent reduction in the total load, a total energy cost savings of $3,500, and a Btu savings of 34,000 kilowatt-hours.

left to right: Dr. Michael Siminovitch LBNL, Rodeo Postmaster Joe McDonald, Post Office Manager Frank Silva.

Office of the Controller
United States Postal Service
Washington, DC
202-268-3397

In FY 1999, the Office of the Controller provided support to several energy programs of the United States Postal Service. An in-depth evaluation and analysis of a proposal to purchase a fleet of energy-efficient vehicles was undertaken, resulting in the approval and purchase of more than 10,000 gasoline/ethanol vehicles and 500 electric vehicles. An area of significant support from the Controllers Office is for the Shared Energy Savings program of the United States Postal Service. In FY 1999, the Controller organization, working with the purchasing group developed a training seminar on the use of alternative financing for energy projects. This training was delivered to more than 40 Postal energy managers and purchasing specialists in Memphis, Tennessee. The in-depth seminar highlighted contracting issues, technical evaluation of proposals, and the establishment of energy teams. Information also was provided on how to partner with vendors and utility companies.

Innovative/New Technology Awards to Small Groups

Jerard Butler
Lindsey C. Lee
Barbara McPhelim
Ken Shutika
Don Stiteler
General Services Administration
Penn. Electric Power Procurement
Philadelphia, Pennsylvania
215-656-5692

General Services Administration responded to the newly deregulated electric industry in Pennsylvania by combining its electricity requirements with those of other Federally-funded agencies in the state. The large amount of business enticed utility companies into offering the lowest electric rates available. This GSA team combined the requirements of 23 Federal agencies and four Federally-funded non-profit organizations under a $24.6 million procurement, allowing participating agencies to focus their limited resources on their core missions, while at the same time saving the participating agencies a combined $5 million in energy costs. This represents a total energy cost savings of approximately 10 percent. GSA awarded the power contracts to two major energy providers in Pennsylvania early in FY 1999. The procurement has an estimated requirement of 663 million kWh. This innovative procurement cost only $50,000 in marketing and acquisition costs.

Exceptional Service Awards to Organizations

Navy Energy Project Development and Execution Team
Department of the Navy
Port Hueneme, California
805-982-3486

The Department of the Navy's (DON's) Energy Project Development and Execution Team is responsible for performing or contracting for energy audits, and identifying and executing all fundable DON energy and water projects having a payback of less than 10 years. The Team develops and submits all required project documentation, and participates in selecting which projects to fund centrally and which to finance via utility programs and energy saving performance contracts. The Team identifies contract vehicles, validates technical and financial details, and facilitates contract awards. In FY 1999, the Team executed 17 Energy Conservation Investment Program projects totaling $21.2 million with $86.5 million in projected life-cycle savings. The Team also executed 28 alternatively-financed projects with utility companies and energy service companies investing $78 million, which is expected to yield $85.5 million in life-cycle net-present-value savings to the Government. The Team consists of representatives from the Naval Facilities Engineering Command Headquarters, Naval Facilities Engineering Service Center, Public Works Center (PWC) Norfolk, PWC Jacksonville, PWC Great Lakes, PWC San Diego, Naval Facilities Contracts Office, Puget Sound Naval Shipyard, and the Atlantic, South, Southwest, and Pacific Engineering Field Divisions of the Naval Facilities Engineering Command.

Exceptional Service Awards to Small Groups

Mari French
Frank Malinick
United States Air Force Reserve
452nd Air Mobility Wing
March Air Reserve Base, California
909-655-4458

Frank Malinick, Mari French

In April 1996, March Air Force Base transitioned to an Air Reserve and Air National Guard Base with the 452nd Air Mobility Wing in charge. In taking on their new positions at the reserve, Frank Malinick and Mari French had to pick up where others left off. Mr. Malinick, base energy manager, developed a new energy and utility management program for the base, known as the Defense Utility Energy Reporting System. The program reflects continuous tracking of total base utility consumption data along with consumption use by organization, including tenants. Based on data so far, there appears to be a 5 percent reduction in electrical use and a 6 percent decrease in natural gas use, this reduction comes even after increased population on the Base. After attending training courses, Mr. Malinick started energy conservation initiatives at the Base. He included retrofitting of electrical fixtures in at least five building renovation projects. Helping Mr. Malinick transform the Base was Resource Management Assistant Mari French. Due to Ms. French's dedication and excellent relations, a rapport was created with utility customers, audit report findings acted upon, and a viable utilities management program was established. Ms. French was called on to serve as March Air Reserve Base project manager, where she successfully led a team of higher ranking experts who completed all utility privatization (UP) projects on time, making the project a model for other Bases undergoing the UP process.

Exceptional Service Awards to Individuals

Frank Kutlak
Department of Health and Human Services
National Institutes of Health
Bethesda, Maryland
301-402-3691

Frank Kutlak is managing a $93 million budget to design and construct a state-of-the-art laboratory facility, known as Building 50, on the National Institutes of Health Bethesda Campus in Bethesda, Maryland. Building 50's design employs the latest energy saving technologies and will consume roughly 40 percent less energy than a comparable, standard design laboratory. For project construction, Mr. Kutlak reviewed bids based on contractors that were of the "best value" to the Government, not necessarily the "lowest cost." Even through this strategy, the standard appropriated budget had hardly been used and therefore, enough funding remained to build an additional floor to the laboratory. The project also received a $2 million utility rebate to the Government. To keep others up-to-date on the project developments, Mr. Kutlak developed a Web site on the design and construction of Building 50 and established a list serve to provide E-mail updates on the construction. Mr. Kutlak's devotion to this project, from formulating the design team to obtaining management approval, to the creation of an energy-efficient and environmentally-sound building has resulted in the recognition of Building 50 as a state-of-the-art energy-efficient laboratory.

Commander MK Trina Baldwin
Department of Defense
Washington, DC
703-697-6195

Responsible for the Department of Defense's $2.2 billion installations energy program, CDR Baldwin's leadership has been a critical factor in reducing Department of Defense's facility energy consumption. While managing the $34 million Energy Conservation Investment Program (ECIP), she redesigned the project selection process to capture the full potential of this limited funding source. This new priority system better integrates ECIP with private-sector funding sources and ensures that projects are funded by the most appropriate means. Commander Baldwin was a constant advocate for better project execution and accountability and has vigorously defended ECIP throughout the budget and Congressional review process. She also developed a comprehensive program to execute $4 million added by Congress to support Department of Defense's energy savings performance contracts. Commander Baldwin painstakingly collected, analyzed, coordinated, and verified input from all Defense Components for Department of Defense's annual energy report submission. Not satisfied with simply updating previous reports, she published DoD-specific amplifying guidance to simplify the process for the Components and skillfully consolidated data and narrative input from multiple sources, making the report a thorough and accurate, yet extremely readable document. Commander Baldwin also represented the Department of Defense on eight Federal interagency working groups established to develop implementation guidance for Executive Order 13123. She ensured that Department of Defense Components participated fully in the implementation process, as well as helping to keep the process on track and making sure that published guidance was realistic and did not impact negatively on Defense readiness, while still meeting the goals of the order.

Laszlo F. Zala, P.E.
National Aeronautics and Space Administration
Cleveland, Ohio
216-433-5443

Laszlo Zala has been individually responsible for a number of significant accomplishments over the past 10 years in support of the NASA energy conservation program at the Glenn Research Center (GRC) in Cleveland, Ohio. His excellent managerial skills have been instrumental in successful implementation of Federal Executive Orders and NASA Headquarter mandates regarding energy management policies, procedures, and guidelines at GRC. Mr. Zala's advocacy in promoting the importance of energy conservation programs has been key in getting upper management's attention, which resulted in establishing a full-time Energy Manager position. Mr. Zala's vision and goals have resulted in a number of accomplishments for GRC. The center was selected by DOE as one of the two participants in the Midwestern Region's Super ESPC solicitation. GRC was able to successfully reduce firm electrical demand from 24 megawatts to 21 megawatts until the end of this calendar year, resulting in a $1.5 million savings while a new utility contract is being negotiated. Mr. Zala was also involved in the installation of 220 microprocessor devices throughout 65 buildings in order to establish baseline data of energy consumption and monitor energy reduction. Total energy savings in FY 1999 as a result of Mr. Zala's efforts are $1 million and 18.9 billion Btu.

Steve James
National Park Service
Department of the Interior
Sedro-Woolley, Washington
360-873-4590

In one of the most remote locations of North Cascades National Park Service Complex in Hozomeen, two energy-efficient two-bedroom duplexes were built utilizing a self-contained photovoltaic electrical system with a back-up propane generator. Steve James, Maintenance Mechanic at the North Cascades National Park Service Complex was designated the project supervisor for this task because of his expertise with these systems and knowledge of construction techniques. Mr. James helped design the photovoltaic system, certified all materials to meet energy specifications, met the sustainable design criteria, and assured energy systems were correctly installed and functional. Construction time was limited, requiring egress through Canada and over poorly maintained roads, but with the leadership of Mr. James, the project met all time and design requirements of the contract. Because the design involved energy efficiency, and communications were limited, as there are no telephones at Hozomeen and radio communications are unreliable, Mr. James was called upon to make unilateral decisions on-site without counsel from the contracting officer. Throughout construction of this project, Mr. James lived at Hozomeen, commuting home on the weekends to spend time with his family. His dedication to this project at some sacrifice to his personal life have allowed the units to be considered successful prototypes for other housing projects anticipated in the Park as well as in other locations.

Jeffrey L. Hager
Department of the Army
New Cumberland, Pennsylvania
717-770-6711

Jeffrey Hager is recognized for his outstanding contribution to the Army's Energy Program while serving as the Army Energy Program Manager. Mr. Hager has been instrumental in implementing and promoting the U.S. Army's energy program. His leadership and personal interest in the program enabled the U.S. Army to gain the distinction within the Department of Defense with respect to energy conservation and management. During the period 1996-1999, he has overseen many aspects of the program to include energy managers training, energy reporting system, awareness activities, and providing guidance to major commands and installations. With Mr. Hager's interest in energy management, the U.S. Army continues on track toward achieving Federally mandated 2010 energy reduction goals. Mr. Hager's personal involvement with the Army Energy Program has been a major factor in ensuring that energy management, training, and awareness retain a proper and viable position within the U.S. Army.

Larry Emmons
United States Marine Corps
Barstow, California
760-577-6739

Larry Emmons, energy manager for the Marine Corps Logistics Base (MCLB) in Barstow, California, has led the Base into a number of energy saving projects that have become examples to other facilities and agencies. MCLB aligned with Southern California Edison's ENVEST and contracted to perform a study along with energy conservation opportunities (ECO) via a demand side management project. The study identified $8.2 million in ECO funding. With this money, MCLB agreed to the installation of lighting retrofits, installation of new satellite boilers, replacement of old 10- to 250-horsepower motors with new energy-efficient motors, and the installation of an energy monitoring and control system in high-energy-use buildings for a total of $4.2 million. The project saves MCLB $650,000 annually. Furthermore, Mr. Emmons was informed of funding for energy projects at a lesser interest rate so he led MCLB, NAVFAC Southwest Division San Diego, and ENVEST to pursue a new, lower interest rate. Mr. Emmons also contacted the Commandant of the Marine Corps and the Navy requesting any available funds not obligated to be forwarded to MCLB. Using this approach, he has applied $550,000 of Government year-ending funds every two years to the loan. Additionally, refinancing of the loan has averted $1.5 million in contract interest charges.

Louis R. Harris Jr. Award

Sam Grego
United States Postal Service
Washington, DC
202-268-2637

Sam Grego is a 26-year career employee with the U.S. Postal Service. For the last six years he has been actively involved with the Postal Service Energy Program. Mr. Grego developed a simplified commercial contracting vehicle under the Postal Service's Shared Energy Savings (SES) program that streamlines the implementation of energy efficiency measures and reduces operational costs in their facilities. To ensure that appropriate Postal Service personnel were aware of the new commercial SES contracting vehicle, he developed a training workshop and a companion Postal Service energy project field guide to assist District and Area Energy Teams in completing energy projects. He held 17 SES workshop training sessions involving 256 cross-functional Postal employees at 7 Area and 32 District offices. The sessions taught employees the process and procedures required to do shared energy saving contracts for energy projects. To further the success of the Postal Service energy program, Mr. Grego also developed a Memorandum of Understanding and an Interagency Agreement with the Department of Energy to utilize their Super ESPC program for energy services. Mr. Grego is an active member in conferences and workshops sponsored by DOE's Federal Utility Partnership Working Group and Association of Energy Engineers. He also serves as an active member of the USPS National Environmental Purchasing Steering Committee, the National Energy Program Committee, and the Utility Partnership Working Group.

2000 FEDERAL ENERGY AND WATER MANAGEMENT AWARDS
CERTIFICATES OF RECOGNITION

ENERGY MANAGEMENT

Individual
Danny L. Arterberry, Department of Defense - Army
Mehryar Ebrahimi, Department of Health and Human Services
Mark J. Fincher, Department of Defense - Army
James A. Heine, Department of Energy
John B. Holland, Department of Defense - Army
Kent Jackson, Department of Defense - Army
C. Don Juhasz, Department of Defense - Army
Stanley Lee, Department of Transportation
Jeff Seaton, CEM, Department of Defense - Army
Jodi Sordahl, Department of Transportation
Glenn Stubblefield Jr., Department of Defense - Army
John Van De Vaarst, Department of Agriculture
Jerry Wheeler, Department of Interior

Small Group
Samuel L. Camp Jr., 382 Pumphouse Upgrade Team, Department of Energy
James L. Day, 382 Pumphouse Upgrade Team, Department of Energy
Daniel D. Deardorff, 382 Pumphouse Upgrade Team, Department of Energy
Ralph DeSimone Jr., 382 Pumphouse Upgrade Team, Department of Energy
Nathaniel Harden, 382 Pumphouse Upgrade Team, Department of Energy
W. Kent Hedges, Air Station Camp Pendleton CA, Department of Defense - Marines
Martin Lubarsky, Air Station Camp Pendleton CA, Department of Defense - Marines
Mike Nelson, Air Station Camp Pendleton CA, Department of Defense - Marines
Sharon Sanchez, Air Station Camp Pendleton CA, Department of Defense - Marines
Richard F. Dubicki, Army Energy Team, Department of Defense - Army
Henry Gignilliat, Army Energy Team, Department of Defense - Army
Carey Klug, Army Energy Team, Department of Defense - Army
Regina Larrabee, Army Energy Team, Department of Defense - Army
Joseph Whitaker, Army Energy Team, Department of Defense - Army
Jeff Allen, Cannon Air Force Base, NM, Department of Defense - Air Force
John Hollan, Cannon Air Force Base, NM, Department of Defense - Air Force
Chris Sandoval, Cannon Air Force Base, NM, Department of Defense - Air Force
Judy Babcock, Colorado/Wyoming Performance Cluster, United States Postal Service
Karen Harris, Colorado/Wyoming Performance Cluster, United States Postal Service
Lynn Pauley, Colorado/Wyoming Performance Cluster, United States Postal Service
Ryan Walker, Colorado/Wyoming Performance Cluster, United States Postal Service
James Ballas, Environmental and Energy Management Team, Department of Defense - Air Force
John Gunn, Environmental and Energy Management Team, Department of Defense - Air Force
Andy Harper, Environmental and Energy Management Team, Department of Defense - Air Force
Liam Nagle, Environmental and Energy Management Team, Department of Defense - Air Force

Tamas Szaloczi, Environmental and Energy Management Team, Department of Defense - Air Force
Digna Campos, Historic Exterior Security Lighting Project Team, General Services Administration
Stephen Delroy, Historic Exterior Security Lighting Project Team, General Services Administration
Brian K. Magden, Historic Exterior Security Lighting Project Team, General Services Administration
John Mitchell, Historic Exterior Security Lighting Project Team, General Services Administration
Frank Napoli, Historic Exterior Security Lighting Project Team, General Services Administration
Hirayasu Ikuhide, Kadena Air Base, Japan, Department of Defense - Air Force
Takashi Ishikawa, Kadena Air Base, Japan, Department of Defense - Air Force
Charles L. Transley, Kadena Air Base, Japan, Department of Defense - Air Force
Joseph Couball, Marine Corps Air Station, Yuma, AZ, Department of Defense - Marines
Daniel Drier, Marine Corps Air Station, Yuma, AZ, Department of Defense - Marines
Ron Durfey, Marine Corps Air Station, Yuma, AZ, Department of Defense - Marines
Mark Smith, Marine Corps Air Station, Yuma, AZ, Department of Defense - Marines
David Braidich, NASA Glenn Research Center, National Aeronautics and Space Administration
Robert Scheidegger, NASA Glenn Research Center, National Aeronautics and Space Administration
Jerry R. Young, NASA Glenn Research Center, National Aeronautics and Space Administration
Dave Dines, Offut Air Force Base, Department of Defense - Air Force
Gary Eddy, Offut Air Force Base, Department of Defense - Air Force
Phil Rogers, Offut Air Force Base, Department of Defense - Air Force
Peter Rubin, Offut Air Force Base, Department of Defense - Air Force
Mark Tungland, Offut Air Force Base, Department of Defense - Air Force
Bob McLure, US Army Material Command, Detroit Arsenal, Department of Defense - Army
Robert Riparip, US Army Material Command, Detroit Arsenal, Department of Defense - Army
Norman Walters, US Army Material Command, Detroit Arsenal, Department of Defense - Army
Aida Charnholm, VAMC Decatur Lighting Retrofit Team, Department of Veterans Affairs
Joe Nash, VAMC Decatur Lighting Retrofit Team, Department of Veterans Affairs
Jeff Sage, VAMC Decatur Lighting Retrofit Team, Department of Veterans Affairs
David Summers, VAMC Decatur Lighting Retrofit Team, Department of Veterans Affairs

Organization

17th Civil Engineering Squadron, Goodfelow AFB, TX, Department of Defense - Air Force
374th Civil Engineer Squadron, Department of Defense - Air Force
Andover IRS Center, Department of Treasury
Army Logistics Integration Agency, Department of Defense - Army
Bolling AFB, Department of Defense - Air Force
Bonneville Power Administration, Department of Energy
Construction Battalion Center, Port Hueneme CA, Department of Defense - Navy
Eielson AFB, AK, Department of Defense - Air Force
Facilities Division, Marine Corp Base Quantico, Department of Defense - Marines
Fort Hood, Department of Defense - Army
Fort McCoy, Department of Defense - Army
Great Lakes Region, General Services Administration
Hanford - Richlands Operation Office, Department of Energy
Hickam Air Force Base, Department of Defense - Air Force
Laughlin Air Force Base, TX, Department of Defense - Air Force
Luke Air Force Base, AZ, Department of Defense - Air Force
Marine Corps Logistics Base, Barstow CA, Department of Defense - Air Force
Marine Corps Recruit Depot - Parris Island, Department of Defense - Marines
Mike Monroney Aeronautical Center, Department of Transportation

NASA Kennedy Space Center, National Aeronautics and Space Administration
National Energy Technology Laboratory, Department of Energy
Naval Air Station, Keflavik, Department of Defense - Navy
Naval Security Group Activity, Sugar Grove, WV, Department of Defense, Navy
Naval Security Group Activity, Winter Harbor, ME, Department of Defense - Navy
Naval Station Mayport, Department of Defense, Navy
Naval Training Center (NTC), Great Lakes, IL, Department of Defense, Navy
Naval Undersea Warfare Center Division, Newport RI, Department of Defense, Navy
Norfolk Naval Shipyard, Department of Defense, Navy
Radford Army Ammunition Plant, Department of Defense, Army
Randolph Air Force Base, TX, Department of Defense - Air Force
Savannah River Site, Department of Energy
Southeast Area Energy Management Steering Committee, United States Postal Service
Steam Advisory Board, Cherry Point, NC, Department of Defense - Marines
TVA Hydro Modernization Program, Tennessee Valley Authority
US Army TACOM ARDEC, Department of Defense - Army
US Army TRADOC, Fort Knox, Department of Defense - Army
USPS Pacific Area, United States Postal Service
Watts Bar Nuclear Plant, Tennessee Valley Authority
Western Area Environmental Lighting Project Team, United States Postal Service
Wetchester District and NYSERDA, United States Postal Service
Wright-Patterson Air Force Base, Department of Defense - Air Force

RENEWABLE ENERGY MANAGEMENT

Individual
Gary W. Archer, Department of Defense - Marines

Small Group
Rich Myers, Fairbanks, AK Co-Gen Project, General Services Administration
Michael Ofenloch, Fairbanks, AK Co-Gen Project, General Services Administration
Michael Okoro, CEM, Fairbanks, AK Co-Gen Project, General Services Administration
Eileen Trezise, Fairbanks, AK Co-Gen Project, General Services Administration
Owen Wilson, Fairbanks, AK Co-Gen Project, General Services Administration
Raymond E. Chin, Lawrence Livermore National Laboratory, Department of Energy
Blair I. Horst, Lawrence Livermore National Laboratory, Department of Energy
George A. Metzger, Lawrence Livermore National Laboratory, Department of Energy
John C. Podobnik, Lawrence Livermore National Laboratory, Department of Energy
John Garrick , Region 10, General Services Administration
Scott Graham, Region 10, General Services Administration
Betsy Kruger, Region 10, General Services Administration
Michael Okoro, CEM, Region 10, General Services Administration
Roger Wright, CEM, Region 10, General Services Administration

Organization
16th Civil Engineer Squadron, Department of Defense - Air Force
Beltsville Agricultural Research Center, Department of Agriculture

Fermilab, Department of Energy
Public Works, Fort Monmouth, NJ, Department of Defense - Army

ALTERNATIVE FINANCING

Individual

Vicki A. Carter, Department of Defense - Army
Nathaniel B. Cost, CEM, Department of Defense - Air Force
Robert Montebello, United States Postal Service
Deneen Seril, Department of Defense

Small Group

Robert High, Building Management Branch PSC Energy Management Team, Department of Health and Human Services
Glen Phillips, Building Management Branch PSC Energy Management Team, Department of Health and Human Services
Heather Ranson, Building Management Branch PSC Energy Management Team, Department of Health and Human Services
Ted Cleberg, Ellsworth Air Force Base, Department of Defense - Air Force
Leonard Iverson, Ellsworth Air Force Base, Department of Defense - Air Force
Marc Jacobs, Ellsworth Air Force Base, Department of Defense - Air Force
Chuck Miller, Ellsworth Air Force Base, Department of Defense - Air Force
Dennis Svalstad, Ellsworth Air Force Base, Department of Defense - Air Force
Deborah J. Beattie, FAA Northwest Mountain Region, Department of Transportation
Howard Carson, FAA Northwest Mountain Region, Department of Transportation
Shirley Cochran, FAA Northwest Mountain Region, Department of Transportation
Robert McGranahan, FAA Northwest Mountain Region, Department of Transportation
W. Rob Wolfe, FAA Northwest Mountain Region, Department of Transportation
Vista Gifford, FDA Bothell, General Services Administration
Art Hope, FDA Bothell, General Services Administration
Michael Huber, FDA Bothell, General Services Administration
Michael Okoro, FDA Bothell, General Services Administration
Cheri Sayer, FDA Bothell, General Services Administration
Regi Mallari, Navy Public Works Center, Jacksonville, Department of Defense - Navy
Lee F. Merrill, Navy Public Works Center, Jacksonville, Department of Defense - Navy
Samantha Shelton, Navy Public Works Center, Jacksonville, Department of Defense - Navy
Bonita Thevenin, Navy Public Works Center, Jacksonville, Department of Defense - Navy
Mark Awmiller, Southeast Sunbelt Region, General Services Administration
Steven T. Leonard, Southeast Sunbelt Region, General Services Administration
Kurt Miller, Southeast Sunbelt Region, General Services Administration
William J. Murray, Southeast Sunbelt Region, General Services Administration
Timothy A. Wisner, Southeast Sunbelt Region, General Services Administration
Edward Bradley, VA Medical Center Mountain Home TN, Department of Veterans Affairs
Robert B. Eidson, VA Medical Center Mountain Home TN, Department of Veterans Affairs
Carl J. Gerber, VA Medical Center Mountain Home TN, Department of Veterans Affairs
Anatolij Kushnir, VA Medical Center Mountain Home TN, Department of Veterans Affairs
Michael Simmons, VA Medical Center Mountain Home TN, Department of Veterans Affairs

Organization
436th Civil Engineer Suadron Dover Air Force Base, Department of Defense - Air Force
Anderson AFB, Department of Defense - Air Force
NASA John H. Glenn Research Center at Lewis Field, National Aeronautics and Space Administration
Portsmouth Naval Shipyard, Department of Defense - Navy
Robins AFB, Department of Defense - Air Force
Robins AFB, Department of Defense - Air Force
USPS New York Metro Area, United States Postal Service

MOBILITY ENERGY EFFICIENCY

Organization
USPS Pacific Area, United States Postal Service
US FIFE (DD-991), Department of Defense - Navy

WATER MANAGEMENT

Individual
Jeff D. Garrett, Department of Interior
Craig Hansen, Department of Defense

Small Group
Takeshi Anzai, Facility Maintenance Management Section, Department of State
Tomekichi Ogawa, Facility Maintenance Management Section, Department of State
Fumitaka Oue, Facility Maintenance Management Section, Department of State
John Vickers, Facility Maintenance Management Section, Department of State
David Abbott, Hill Air Force Base, Department of Defense - Air Force
Sundae Knight, Hill Air Force Base, Department of Defense - Air Force
Kent Nomura, Hill Air Force Base, Department of Defense - Air Force
Rockie Wilson, Hill Air Force Base, Department of Defense - Air Force

Organization
17th Civil Engineer Squadron, Goodfellow AFB, TX, Department of Defense - Air Force
611 Civil Engineer Squadron, Elmendorf AFB, AK, Department of Defense - Air Force
Anniston Army Depot, Department of Defense - Army
US Bureau of Reclamation Lower Colorado Regional Office, Department of Interior

Energy Awareness Month Activities Across the Federal Sector

Federal facilities were very busy with Energy Awareness Month activities last October. Several Government agencies initiated awards programs and activities to recognize the importance of energy conservation in and around their facilities. Whether holding energy fairs to educate employees and the public, recognizing past triumphs, or executing plans to make necessary energy-saving changes, all were significant achievements in helping the environment and assisting in efforts to meet the goals of Executive Order 13123. Although there is still much to be done, the motivation from the successes of Energy Awareness Month will help Federal agencies to continue the energy saving momentum.

PHOTOVOLTAIC UNIT INSTALLED AT WHALE SANCTUARY

On October 21, 2000, a ceremony was held at the Humpback Whale Marine Mammal Sanctuary in Maui, HI, to honor a partnership between the sanctuary, DOE/FEMP, the Commerce Department's National Oceanic and Atmospheric Administration, Upcountry Electric Company, and Maui Electric Company. This partnership resulted in the installation of a 2.8 kilowatt photovoltaic (PV) system at the whale sanctuary. The system is the first utility interconnection agreement between Maui Electric Company and a PV system, paving the way for other distributed generation projects at Federal facilities in Hawaii. The current system regularly exceeds the load requirements of the sanctuary, and at such times the excess power is sold back to the utility. In addition, the system can potentially expand output to 10 kilowatts.

For more information, contact Andy Walker of NREL at 303-384-7531.

(l to r): Naomi McIntosh, the Hawaiian Islands Humpback Whale National Marine Sanctuary Acting Manager; Heather and Ewen Rendell, Upcountry Electric Company; Kathy Pierce, Director, Seattle Regional Office; and Bill Bonnett, President, Maui Electric Company. On behalf of DOE, Ms. Pierce presented certificates of appreciation to all three partners at the dedication of the 2.8 kilowatt photovoltaic system at the Whale Sanctuary.

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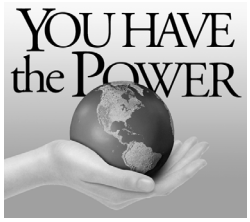

ENERGY AWARENESS MONTH ACTIVITIES
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GREEN ENERGY PARKS URBAN TREEHOUSE

At a ceremony on November 1, 2000, Department of Energy and Department of the Interior National Park Service officials announced $1.6 million in funding for renewable energy projects at 70 parks across the country through their joint Green Energy Parks program. Remarks at the ceremony were made by David Hayes, Deputy Secretary of the Interior and T.J. Glauthier, Deputy Secretary of Energy, among others. The ceremony was held at Anacostia Park, in Washington, DC, which received funding to install solar powered lighting for its Urban Tree House, an outdoor environmental education center. Green Energy Parks promotes the use of energy-efficient and renewable energy technologies and alternative fuels throughout the National Park system.

For more information on the Green Energy Parks Program, please contact Anne Crawley of FEMP at 202-586-1505 or anne.crawley@ee.doe.gov.

Deputy Secretary of Energy T.J. Glauthier speaks at the Green Energy Parks announcement where the microphone and other equipment were powered by a "Power Pod" PV system.

NATIONAL GALLERY OF ART AND DOE SIGN DELIVERY ORDER

The National Gallery of Art (NGA) and DOE announced the first delivery order under DOE's Mid-Atlantic Regional Super Energy Savings Performance Contract to be signed in fiscal year 2001. The contract between the NGA and ERI Services will result in approximately $2.6 million in privately-funded capital improvements to the NGA's facilities and an estimated $5 million in total energy cost savings.

A contract signing ceremony was held on November 3, 2000, at the National Gallery of Art where remarks were made by Darrell Willson, Administrator, National Gallery of Art, and Dan Reicher, Assistant Secretary of Energy Efficiency and Renewable Energy.

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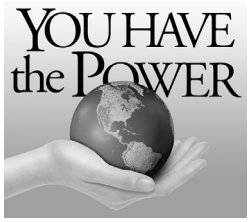
At the National Gallery of Art delivery order signing, (l to r) Neil Petchers, Senior Vice President and General Manager of ERI Services, Inc.; Darrell Willson, Administrator, National Gallery of Art; and Dan Reicher, Assistant Secretary of Energy Efficiency and Renewable Energy.



ENERGY AWARENESS MONTH ACTIVITIES
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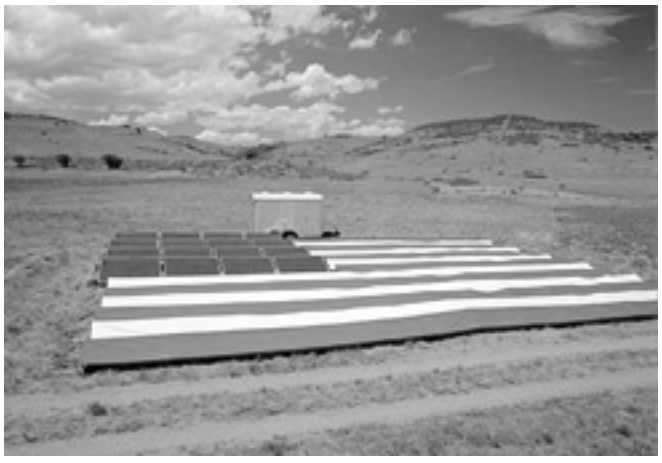
According to the Deputy Secretary of Energy, T.J. Glauthier, "This contract is a great example of how the Federal Government is working with the private sector to bring energy efficient technologies to our Federal facilities. These contracts are a powerful tool that offer energy and cost savings as well as environmental benefits."

For more information, contact Brad Gustafson of FEMP at 202-586-2204, or brad.gustafson@ee.doe.gov.

SOLAR ELECTRIC FLAG TO BE DISPLAYED IN WASHINGTON, DC, SPRING 2001

A large photovoltaic flag (see photo) was one of the highlights of Energy Awareness Month activities at DOE's National Renewable Energy Laboratory (NREL) in Golden, CO. Displayed on the grounds outside NREL's visitor center, the exhibit, dubbed "Solar Independence" by the designers, features a 4-kilowatt photovoltaic (PV) system that will be used for mobile emergency power.

The flag field of blue is made up of PV panels that together generate enough electricity to power up to two homes. Red and white vinyl "stripes" were added by volunteers from NREL's staff. Batteries that can store up to 51 kilowatt-hours of electricity are housed in a portable trailer behind the flag.



The Solar Independence exhibit which was displayed on the grounds of NREL in Golden, CO, for Energy Awareness Month.

The PV system is the largest mobile power unit ever built; it will be part of emergency training exercises in Colorado in the coming year. The flag is also scheduled for display on the Mall in Washington, DC, April 24-May 9, 2001. "The display's objective," said NREL's John Thornton, "is to raise people's awareness about the value of these technologies. And the only way to do that is to show them the technology." The system was designed by Ben Kroposki of NREL.

Other Energy Awareness Month activities at NREL included tours of the National Wind Technology Center, the PV Outdoor Test Lab, and many other NREL facilities, as well as consumer workshops on passive solar home design, wind power for homes, alternative-fuel and hybrid vehicles, and solar electricity for the consumer.

For more information, please contact John Thornton, 303-384-6469.

DOE'S ATLANTA REGIONAL OFFICE CELEBRATES NEW ENERGY EFFICIENT OFFICE SPACE

As a culmination to Energy Awareness Month 2000, DOE's Atlanta Regional Office (ARO) held a public open house of its new energy-efficient office space in the Richard B. Russell Federal Building and U.S. Courthouse.

Participants joined in a ribbon cutting whose theme was "Taking A Green Path to Energy Efficiency," then toured the new office space. They also had the opportunity to take a behind-the-scenes look at energy efficiency work being done throughout the building for the General Services Administration by Energy Services Inc. (ERI), under the auspices of FEMP.

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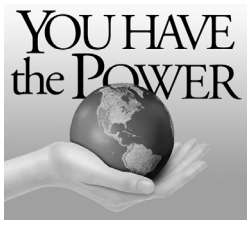

ENERGY AWARENESS MONTH ACTIVITIES
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ERI's work will form the basis of DOE's application to have the Russell Building designated as an ENERGY STAR® Building in FY 2001.

Technologies, products, and practices implemented in the ARO office space include:

- Wooden doors, acoustical ceiling tile, carpet, and ceramic floor tiles from recycled materials as well as environmentally recyclable state-of-the-art ergonomic office furniture.
- Low Volatile Organic Compound (VOC) paints.
- ENERGY STAR® appliances including personal computers, refrigerator, dishwasher, copiers, and fax machines.
- Photocell-controlled perimeter lighting for daylight harvesting, energy-saving fluorescent workstation task lighting, open office concept for daylighting and efficient air circulation, desktop motion sensor lighting and electrical outlet controls, and occupancy lighting sensors in kitchen, mail room, file room, and library.

In addition, ARO maintained existing lighting levels and reduced energy use per fixture by 67 percent in existing overhead lighting fixtures, by adding efficient lighting reflectors, using electronic ballasts in place of magnetic ballasts, and replacing four T12 fluorescent lamps with two T8 lamps.

The intent of this work is to have the office serve as a demonstration laboratory for other Federal agencies that are contemplating the move to new or retrofitted office space. They can see how easy it is to save energy by designing in efficiency.

For more information, contact Dave Waldrop of the Atlanta Regional Office at 404-562-0560 or david.waldrop@ee.doe.gov.

This conference room at the Atlanta Regional Office is full of energy-efficient products such as recyclable state-of-the-art ergonomic office furniture.

OAKLAND OPERATIONS OFFICE HOSTS SIXTH ANNUAL "DOE DAY"

DOE's Oakland Operations Office sponsored its sixth annual "DOE Day" on October 11, 2000, at the Ronald V. Dellums Federal Building Plaza. More than 2,000 people, including students and teachers from area schools, attended the event, which featured resource conservation and other science activities at Oakland Operation's laboratories. This year's theme was "Be Energy Smart."

Office of Science Director, Dr. Mildred Dresselhaus, delivered the keynote address, which included a lively question and answer session with students from local elementary and middle schools regarding careers in math and science. Students from James Madison Middle School also participated in a mini Science Bowl demonstration.

The science and energy exhibits were sponsored by the following:

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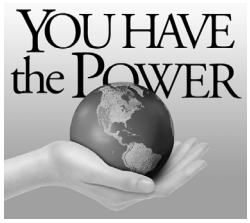
Energy Awareness Month



ENERGY AWARENESS MONTH ACTIVITIES
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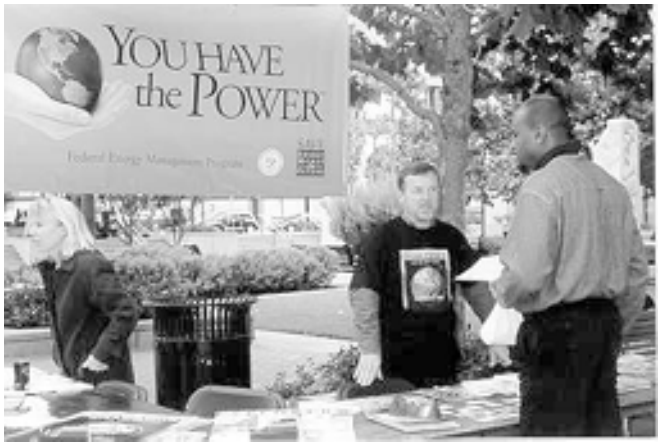
- Oakland Operations Office,
- University of California Office of the President,
- Lawrence Livermore National Laboratory,
- Lawrence Berkeley National Laboratory,
- Stanford Linear Accelerator Center,
- Sandia National Laboratories,
- General Services Administration,
- Environmental Protection Agency,
- City of Oakland Public Works Department,
- Pacific Gas & Electric Company, and
- Museum of African American Technology and Science.

The event was co-sponsored by the General Services Administration Pacific Rim Region and the Environmental Protection Agency Region 9.

For more information contact Lauren Martinez of Oakland Operations Public Affairs Office at 510-637-1814 or lauren.martinez@oak.doe.gov.



Karin King of DOE's Oakland Environmental Programs Division and Tom Brand of the Oakland Engineering and Facilities Management Division talk with interested citizens at the Oakland Operations Office Energy Awareness Month booth.

DEPARTMENT OF ENERGY AWARDS PROGRAMS

The Department of Energy's Federal Energy Management Program was busy sponsoring multiple awards programs during Energy Awareness Month. The 21st Annual Departmental Energy Management Awards were held on Wednesday, October 11, in honor of seven Department of Energy winners and three Energy Champions. On October 12, 42 individuals, small groups, and organizations within 11 Federal agencies were honored for their achievements in energy and water savings of more than $45 million for FY 2000. This issue of the *FEMP Focus* is dedicated to the winners of the Federal Energy and Water Management Awards. Write-ups of award winning projects can be found beginning on page 6.

For detailed information on the Departmental Awards, visit FEMP's Web site at www.eren.doe.gov/femp/aboutfemp/1999_awards.html. For more information on the Federal Energy and Water Management Awards, contact Nellie Greer at 202-586-7875, or nellie.tibbs-greer@ee.doe.gov.

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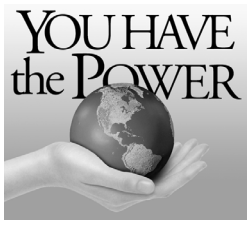
Musician First Class John Fisher sings the National Anthem at the Federal Energy and Water Management Awards while the color guard stands at attention.



ENERGY AWARENESS MONTH ACTIVITIES
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FEDERAL ENERGY MANAGEMENT ADVISORY COMMITTEE MEETS

The first meeting of the newly-formed Federal Energy Management Advisory Committee (FEMAC) was held October 23-24 at the Loew's L'Enfant Plaza in Washington, DC. The committee met to review issues affecting Federal energy management such as energy savings performance contracts, utility energy service contracts, ENERGY STAR®, and other energy-efficient products, building design, and efficient, renewable and clean energy technologies at Federal facilities.

The committee is tasked with providing counsel to DOE on ways to achieve Federal energy management goals set by President Clinton in Executive Order 13123, "Greening the Government Through Energy Efficient Management."

For more information, please contact Steve Huff of FEMP at 202-586-3507, or steven.huff@ee.doe.gov or visit the FEMP Web site at www.eren.doe.gov/femp/newsevents/doe_102000.html.

FEMAC members from left to right: Steven Huff, Robert Collins, Helen Krupovich, Kenneth Calvin, Jared Blum, Hon. Dan W. Reicher, Assistant Secretary for Energy Efficiency and Renewable Energy; Stuart Berjansky, Erbin Keith, Beth Shearer, Richard Earl, Joan Glickman, Vivian Loftness, Cynthia Vallina, Shelly Fidler, and Mary Palomino.

Dan Reicher makes a presentation on the future of clean energy at the first meeting of FEMAC.

HHS ENERGY AWARENESS MONTH ACTIVITIES

The Department of Health and Human Services (HHS) sponsored a *Children's Energy and Water Conservation Poster Contest* at its headquarters in Washington, DC, to celebrate Energy Awareness Month. The posters, designed by children in grades 1 through 12, were displayed for one week. HHS employees voted for the 12 posters to be used in a 2001 energy and water conservation awareness calendar.

In addition, HHS published a special October Energy Awareness Month edition of the *HHS Energy News*, a quarterly newsletter distributed to employees throughout the nation. The newsletter highlighted current HHS energy efficiency projects, energy and water conservation tips, new technologies for home heating and cooling, household solar products, and hot water heat recovery systems. The Department will also perform the annual Energy Awareness Month

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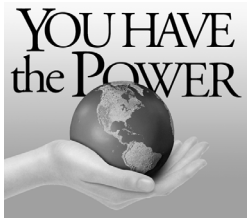

ENERGY AWARENESS MONTH ACTIVITIES
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night-time audits in two buildings in the Washington, DC, area. The audits are thorough walk-throughs for the purpose of increasing public awareness of energy efficiency in the workplace. Notes are left on employees' desks that either commend them for having all lights and office equipment shut off, or remind them to turn off specific equipment. Stickers, magnets, and information cards are also placed at employees' desks and work areas.

HHS facilities throughout the country displayed the *You Have the Power* or *Clean Energy for the 21st Century* banners and posters, and distributed the campaign's awareness materials. HHS has found that employees respond very positively to the Energy Champion posters and awareness handouts provided by DOE FEMP.

For more information, contact Scott Waldman, 202-619-0719 or swaldman@os.dhhs.gov.

GSA FINDS THEIR ENERGY CHAMPIONS

Congratulations to the winners of the Energy Awareness Month contest hosted by GSA's Energy Center of Expertise. The Energy Center's theme for Energy Awareness Month was "Energy, the Last Manageable Cost." The center promoted a contest for all GSA employees called "Are You an Energy Champion?" Participants were asked to answer 10 energy questions and submit their answers by October 20, 2000. The answer to each question was found at the Energy Center Web site. All answers were then evaluated. The winners were:

Alexander E. Barnes
Collette K. Craig
Barbara A. Cortina
Patricia R. Dalzell
Christopher T. Glavis
Kevin Kampschroer
James A. Morris
Reza Motamedamin
Darlene L. Parks
William G. Reger
Vernon Short
Carl B. Wilby

DEDICATION CEREMONY HONORS SUITLAND FEDERAL CENTER SAVINGS

On October 26, 2000, a dedication ceremony was held at the Suitland Federal Center in Maryland to honor GSA's Energy Center of Expertise for providing the National Capital Region more than $1.3 million to install a prototype photovoltaic system in an effort to meet the goals of the President's Million Solar Roofs Initiative and Executive Order 13123. This installation will save nearly $60,000 in electricity costs per year and protect the environment by not producing the greenhouse gas emissions generated by fossil fuels. This project is the largest multi-junction thin film photovoltaic installation in the United States. Other Federal agencies will be implementing solar energy projects throughout the nation using GSA's project as a working model.

For more information on GSA's installation, contact Paula Humo, paula.humo@gsa.gov.

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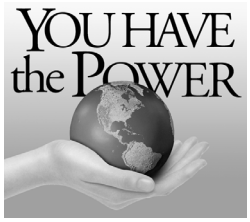
This 2800 panel multi-junction thin film photovoltaic installation, the largest in the U.S., is at the Suitland Federal Center in Maryland.



ENERGY AWARENESS MONTH ACTIVITIES
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MILLION SOLAR ROOFS GOAL MET FOR 2000

At a ceremony on October 26, 2000, Assistant Secretary of Energy Dan Reicher announced that the Federal sector has surpassed its goal of installing 2,000 solar energy systems on Federal facilities since the inception of the Million Solar Roofs Initiative in June of 1997.

Federal agencies have invested more than $10 million into solar energy systems over the past three years, offsetting more than 16,000 MBTUs (million British Thermal Units) of energy generated by fossil fuels each year. In recognition of their efforts towards meeting the goals of the Million Solar Roofs Initiative, plaques were given to those who participated in the effort.

The Million Solar Roofs Initiative began as a response to President Clinton's Executive Order 13123: *Greening the Government through Efficient Energy Management*. In Part 2 - Goals, Sec. 204, Renewable Energy, President Clinton ordered:

> "Each agency shall strive to expand the use of renewable energy within its facilities and in its activities by implementing renewable energy projects and by purchasing electricity from renewable energy sources. In support of the Million Solar Roofs initiative, the Federal Government shall strive to install 2,000 solar energy systems at Federal facilities by the end of 2000, and 20,000 solar energy systems at Federal facilities by 2010."

Executive Order 13123 reinforces the 1997 commitment made by President Clinton that the Federal Government participate in the Million Solar Roofs Initiative. FEMP has coordinated Federal agency participation in this national initiative. The Departments of Commerce, Defense, Energy, Interior, Justice, State, Transportation, and the Environmental Protection Agency, Federal Emergency Management Agency, General Services Administration, National Science Foundation, and United States Postal Service have installed solar energy systems on their buildings and are continuing to install more systems to meet the 2010 goal of 20,000 solar energy systems installed. In addition, NASA and the Smithsonian Institution are developing new solar energy projects.

For more information contact Anne Crawley of FEMP at 202-586-1505 or anne.crawley@ee.doe.gov.

GSA'S ENERGY COORDINATOR AND STAFF RECOGNIZED AT THE FOLEY SQUARE PARK DEDICATION

On October 12, 2000, New York City's Mayor Rudy Giuliani and New York City's Parks and Recreation Commissioner Henry Stern attended a dedication ceremony at the City of New York's Foley Square Park. In an effort to help provide energy-efficient renovations and beautification to Foley Square Park, GSA's Energy Center coordinator and staff developed a partnership with the city to install a lighting system that will save GSA and the city more than $200,000. The Foley Square Park project was established by the City of New York Parks and Recreation department to incorporate pedestrian-friendly, park-like areas and install lighting on top of the Jacob K. Javits Federal Building, to light up the entire Square.

GSA UNVEILS SOLAR ENERGY SYSTEM ON THE ROOF OF THE METCALFE FEDERAL BUILDING

In conjunction with the Department of Energy and the Environmental Protection Agency, on October 30, 2000, the General Services

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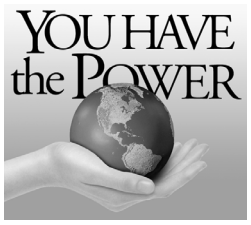

ENERGY AWARENESS MONTH ACTIVITIES
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Administration unveiled a solar energy system on the rooftop of the Metcalfe Federal Building in Chicago. The building's roof had 84 solar panels installed, which contain photovoltaic cells that convert sunlight into electricity. These solar panels were funded by the Energy Center of Expertise as part of its strategy for deregulation of the electric industry entitled "Strategic Positioning." This system demonstrates a non-polluting, renewable energy approach for generating supplemental electricity for building operations. Now, the Metcalfe Federal building is among the 25 percent of buildings nationwide that have received the ENERGY STAR® label.

Since the completion of this project, the photovoltaic workgroup was nominated by EPA Region 5, for the James W. Craig Pollution Prevention Leadership Award. They were nominated for developing and implementing the photovoltaic solar cell system for the Metcalfe building. Those team members include Dorris Ellis, Sharon Gill, Linda Kay Hudson, Julie McGee, Jeffrey Mornar, Julie Nochumson, Hedick E. Partee, and Audrey Washington.

For more information, contact Paula Humo at paula.humo@gsa.gov or visit the Energy Center's Web Site at www.gsa.gov/pbs/centers/energy.

SECRETARY OF THE NAVY BESTOWS AWARDS ON EIGHT COMMANDS

Each year, the Secretary of the Navy recognized those Navy and Marine Corps shore facilities, ships and squadrons achieving exemplary energy and cost savings with a Secretary of the Navy (SECNAV) Energy Award. This year's winners were honored on October 5, 2000, at the U.S. Navy Memorial and Naval Heritage Center in Washington, DC. The winners received monetary awards totaling $255,000 and will fly the SECNAV energy flag for one year. Individual activity awards range from $20,000 to $45,000.

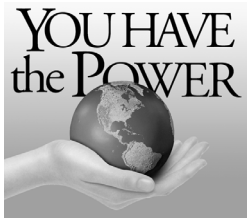
The Honorable Robert B. Pirie, Jr, Under Secretary of the Navy, presented the awards, Randall Yim, Deputy Undersecretary of Defense for Installations gave the keynote address, and Lieutenant Commander John Korka from the Chief of Naval Operations Energy Office was the master of ceremonies for the event.

Awards were presented to:

- Atlantic Undersea Test and Evaluation Center, Andros Island, The Bahamas;
- Marine Corps Logistics Base, Barstow, California;
- Navy Pensacola Region, Florida;
- Marine Corps Recruit Depot/Easter Recruiting Region Parris Island, South Carolina;
- Norfolk Naval Shipyard, Virginia;
- Fleet Logistics Support Squadron Five Eight, Florida;
- USS FIFE (DD 991); and
- USS Bonhomme Richard (LHD-6).

For more information, contact Ellie Sexton of the Naval Facilities Engineering Service Center at 805-982-3908.

Energy Awareness Month



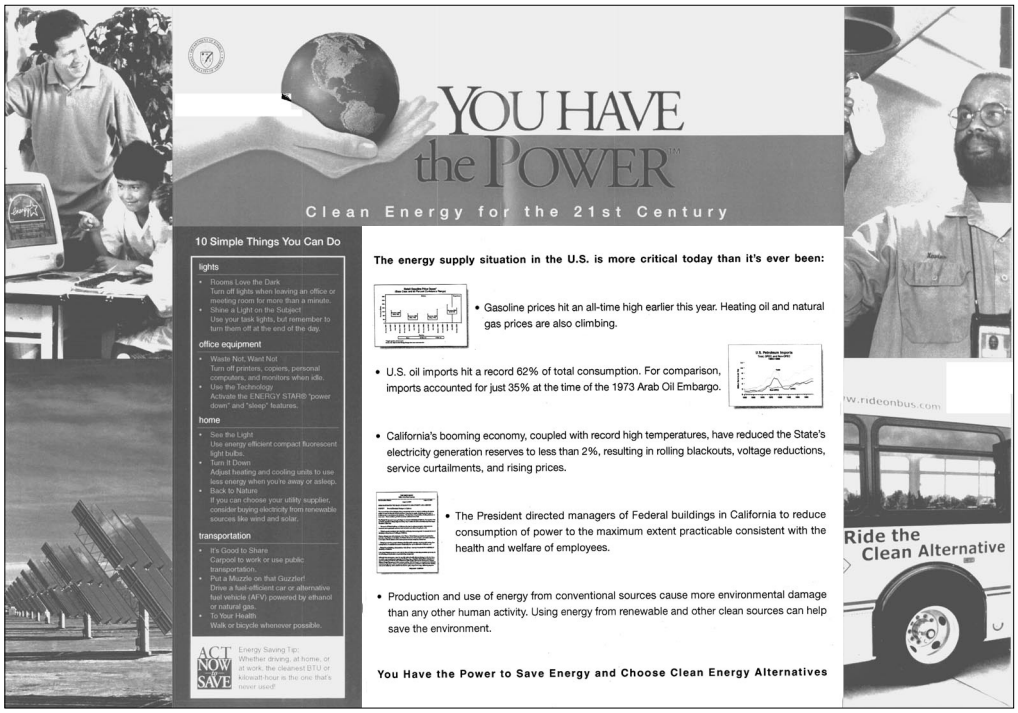
Save Your Energy

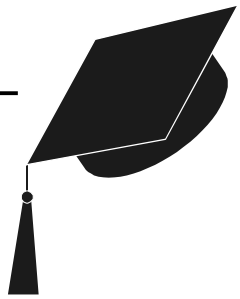
10 Simple Things You Can Do

This year's theme for Energy Awareness Month was "Be Energy Smart." One true way to be energy smart is to practice energy efficiency year round, not just during energy awareness month. Below are 10 simple steps you can follow to reduce energy use throughout the year.

1. ***See the Light*** - Use energy efficient compact fluorescent light bulbs.
2. ***Install, Repair, or Weatherize*** storm windows and reduce heat loss by 25-50 percent.
3. ***It's Good to Share*** - Carpool to work to save energy and reduce pollution.
4. ***Turn it Down*** - Adjust heating and cooling units to use less energy when you are away or asleep.
5. ***Put a Muzzle on That Guzzler!*** Drive a fuel efficient car.
6. ***Fill 'Er Up!*** Choose a reusable mug instead of a throwaway.
7. ***It's Good for You*** - Bike to work and on errands whenever possible.
8. ***Bigger Isn't Always Better*** - Avoid buying larger cooling equipment than the space requires.
9. ***Use the Sun to Heat Your Home*** - It's environmentally friendly and may cut your heating costs by more than 50 percent.
10. ***Is Your Home Air Tight?*** Save 10 percent or more by plugging air leaks around doors, ducts, outlets, and chimneys.

NASA Headquarters' Display for Energy Awareness Month





Distributed Energy Resources Projects and Workshop

The U.S. Federal Energy Management Program (FEMP) has funding available up to $400,000 to support cost-effective Federal projects using Distributed Energy Resources (DER). DER refers to a variety of relatively small decentralized power-generating technologies that can be combined with energy management and storage systems and located close to the point at which the electricity is consumed. DER is now emerging as a new energy service option for Federal customers in addition to centralized electricity generation.

Proposals should be submitted by March 7, 2001. For more information on FEMP's call for FY 2001 DER projects, visit our Web site at www.eren.doe.gov/femp/newsevents/callforDER.html or contact Shawn Herrera at 202-586-1511. The DOE Office of Energy Efficiency and Renewable Energy's DER Strategic Plan is available online at www.eren.doe.gov/der/pdfs/derplanfinal.pdf.

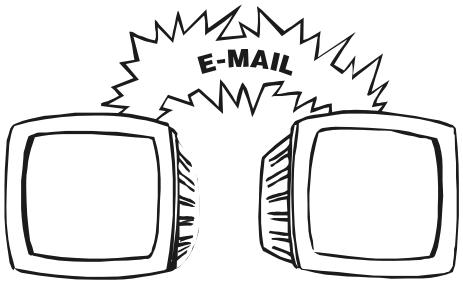
DISTRIBUTED ENERGY RESOURCES WORKSHOP

To learn more about Distributed Energy Resources make plans to attend a DER workshop being held in California in late February 2001. This workshop is free to Federal employees. In this session, Federal managers will:

- Learn details about FEMP's call for DER projects.
- Hear from DOE and industry speakers who will describe the specific DER technologies.
- Understand factors that will lead to successful operation of a DER program.
- Learn about other resources for implementation and assistance with DER projects.

To register for the workshop, please call Gail Norby of the National Renewable Energy Laboratory at 303-384-7407, or visit the FEMP Web site at www.eren.doe.gov/femp/newsevents/callforDER.html.

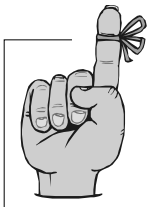
Training



FEMP Focus by E-mail

FEMP Focus is now available to you through e-mail! More than 500 people are already receiving the *FEMP Focus* electronically and you can too. By signing up for the e-mail newsletter, your copy of the *Focus* will be sent to your e-mail address and you will no longer receive the printed version. Some of the benefits of switching to an e-mail subscription include more timely delivery and sharper graphics and photos. And because less paper and ink are used in the newsletter's production, you'll help save energy, money, and valuable natural resources.

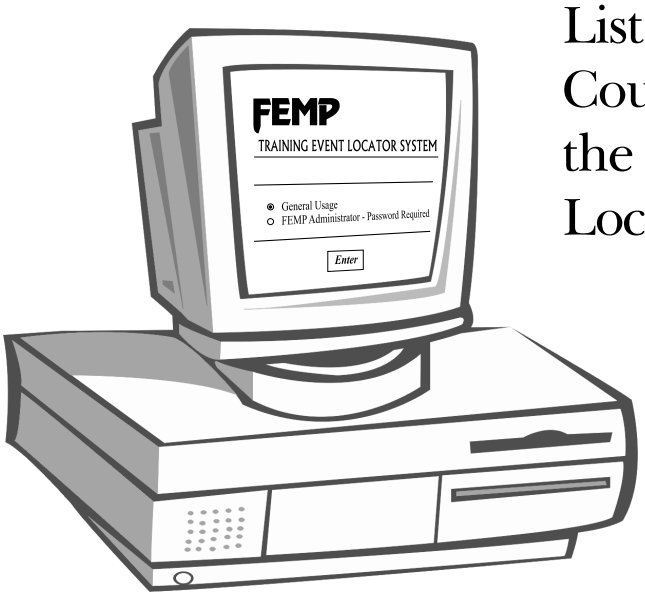
If you are interested in receiving *FEMP Focus* via e-mail in the future, visit the Web site at www.eren.doe.gov/femp/newsevents/whatsnew.html. As always, there is no subscription fee to receive the *Focus*.



FEMP Training Reminders

Jan. 30-31	Golden, CO *Electric Utility Restructuring and Utility Project Financing* 703-243-8343
	Honolulu, HI 509-372-4368
Feb 5-6	*Operations and Maintenance Management*
Feb 7	*Intro to Facility Energy Decision Systems (FEDS)*
Feb 8-9	*Advanced FEDS*
Late Feb	California *Distributed Energy Resources (DER) Workshop* www.eren.doe.gov/femp/newsevents/callforDER.html.
	Revised Energy Management Telecourse 423-369-3453 or 865-777-9869
March 6	*Part 1: EO 13123 Updates; Life-Cycle Costing - Basic; Buying Energy Efficient Products*
March 13	*Part 2: Operations and Maintenance Management; Water Resource Management*
March 20	*Part 3: Energy Savings Performance Contracting; Utility Project Financing*

Attention Trainers



List Your Energy Training Courses and Conferences on the FEMP Training Event Locator Web Site.

It's FREE!

Go to www.eren.doe. gov/ femp/ resources/training/ locator.html to enter your courses directly

or

e-mail deisemann@mcneiltech.com with your course information.

FEMP Contacts

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Will Prue	202-586-4537
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Denver RO:	CO, KS, LA, MT, NE, NM, ND, OK, SD, TX, UT, WY
Philadelphia RO:	DE, DC, MD, NJ, PA, VA, WV
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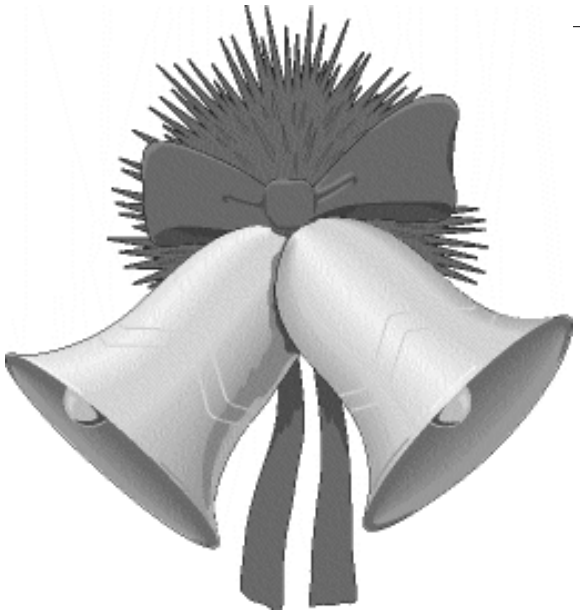
LBNL: Lawrence Berkeley National Laboratory
NREL: National Renewable Energy Laboratory
ORNL: Oak Ridge National Laboratory
PNNL: Pacific Northwest National Laboratory
SNL: Sandia National Laboratories



Happy Holidays

to all and thanks
for a very successful year.

Beth Shearer, Director
Federal Energy Management Program

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FEDERAL ENERGY MANAGEMENT PROGRAM, EE-90
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OFFICIAL BUSINESS